

at Erasmus on the 27th. The average precipitation was 3.34, or about 0.50 below normal; the greatest monthly amount, 5.83, occurred at Sylvia, and the least, 1.73, at Silverlake. The weather was unfavorable for farm work, especially the seeding of winter wheat.—*H. C. Bate.*

**Texas.**—The mean temperature for the State, determined by comparison of 35 stations distributed throughout the State, was 3.4 below the normal. There was a general deficiency ranging from 1.0° to 6.2°, with the greatest over east Texas and the coast district. The highest was 98°, at Fort Ringgold on the 5th and at Fort McIntosh on the 7th, and the lowest, 13°, at Amarillo on the 22d. The average precipitation for the State, determined by comparison of 36 stations distributed throughout the State, was 0.19 below the normal. Nearly normal conditions prevailed over the panhandle. There was a slight deficiency over east, central, southwest, and west Texas, and the western portion of north Texas, and a deficiency of more than 1.00 over the eastern portion of north Texas, while there was a general excess over the coast district. The greatest monthly amount, 5.97, occurred at Jasper, while none fell at Menardville and Sanderson. Much wheat was sown during the month and the showers at the opening of the second decade were very beneficial for the crop. Early sown wheat suffered for rain at the opening of the month and some died, leaving a poor stand in localities over the western portion of the wheat belt.—*I. M. Cline.*

**Utah.**—The mean temperature was 35.4°; the highest was 82°, at Moab on the 7th, and the lowest, 8° below zero, at Woodruff on the 20th.

The average precipitation was slightly above normal; the greatest monthly amount, 3.44, occurred at Huntsville, and the least, trace, at Fahreah, St. George, and Tropic.—*J. H. Smith.*

**Virginia.**—The mean temperature was 44.6°, or about 2.5° below normal; the highest was 80°, at Wytheville on the 3d, and the lowest, 6°, at Burkes Garden on the 28th. The average precipitation was 2.59, or 0.11 above normal; the greatest monthly amount, 4.77, occurred at Spottsylvania, and the least, 1.50, at Salem.—*E. A. Evans.*

**Washington.**—The mean temperature was 39.8°, or 1.5° below normal; the highest was 75°, at Bridgeport on the 1st, and the lowest, 8°, at Waterville on the 16th. The average precipitation was 5.35, or 0.80 below normal; the greatest monthly amount, 15.60, occurred at Neah, and the least, trace, at Bridgeport.—*G. N. Salisbury.*

**Wisconsin.**—The mean temperature was 32.2°, or slightly above normal; the highest was 72°, at Knapp on the 3d, and the lowest, 34° below zero, at Osceola on the 24th. The average precipitation was 1.34, or 0.35 below normal; the greatest monthly amount, 2.45, occurred at Medford, and the least, 0.38, at Chilton.—*W. M. Wilson.*

**Wyoming.**—The mean temperature was 28.2°, or 3.2° below normal; the highest was 76°, at Fort Laramie on the 1st, and the lowest, 20° below zero, at Lovell on the 21st. The average precipitation was 0.83, or 0.07 above normal; the greatest monthly amount, 2.10, occurred at Evanston, and the least, 0.03, at Fort Washakie.—*W. S. Palmer.*

## SPECIAL CONTRIBUTIONS.

### NOTES BY THE EDITOR.

Owing to sickness these sections are omitted in order that the REVIEW may be published on time.

## METEOROLOGICAL TABLES AND CHARTS.

By A. J. HENRY, Chief of Division of Records and Meteorological Data.

Table I gives, for about 130 Weather Bureau stations making two observations daily and for about 20 others making only one observation, the data ordinarily needed for climatological studies, viz., the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and the departures from normals in the case of pressure, temperature, and precipitation, the total depth of snowfall, and the mean wet-bulb temperatures. The altitudes of the instruments above ground are also given.

Table II gives, for about 2,700 stations occupied by voluntary observers, the highest maximum and the lowest minimum temperatures, the mean temperature deduced from the average of all the daily maxima and minima, or other readings, as indicated by the numeral following the name of the station; the total monthly precipitation, and the total depth in inches of any snow that may have fallen. When the spaces in the snow column are left blank it indicates that no snow has fallen, but when it is possible that there may have been snow of which no record has been made, that fact is indicated by leaders, thus ( . . . ).

Table III gives, for about 30 stations furnished by the Canadian Meteorological Service, Prof. R. F. Stupart, director, the means of pressure and temperature, total precipitation and depth of snowfall, and the respective departures from normal values, except in the case of snowfall.

Table IV gives, for 26 stations selected out of 113 that maintain continuous records, the mean hourly temperatures deduced from the Richard thermographs described and figured in the Report of the Chief of the Weather Bureau, 1891-92, p. 29.

Table V gives, for 26 stations selected out of 104 that maintain continuous records, the mean hourly pressures as auto-

matically registered by Richard barographs, except for Washington, D. C., where Foreman's barograph is in use. Both instruments are described in the Report of the Chief of the Weather Bureau, 1891-92, pp. 26 and 30.

Table VI gives, for about 130 stations, the arithmetical means of the hourly movements of the wind ending with the respective hours, as registered automatically by the Robinson anemometer, in conjunction with an electrical recording mechanism, described and illustrated in the Report of the Chief of the Weather Bureau, 1891-92, p. 19.

Table VII gives, for all stations that make observations at 8 a. m. and 8 p. m., the four component directions and the resultant directions based on these two observations only and without considering the velocity of the wind. The total movement for the whole month, as read from the dial of the Robinson anemometer, is given for each station in Table I. By adding the four components for the stations comprised in any geographical division the average resultant direction for that division can be obtained.

Table VIII gives the total number of stations in each State from which meteorological reports of any kind have been received, and the number of such stations reporting thunderstorms (T) and auroras (A) on each day of the current month.

Table IX gives, for about 70 stations, the average hourly sunshine (in percentages) as derived from the automatic records made by two essentially different types of instruments, designated, respectively, the thermometric recorder and the photographic recorder. The kind of instrument used at each station is indicated in the table by the letter T or P in the column following the name of the station.

Table X gives a record of rains whose intensity at some

period of the storm's continuance equaled or exceeded the following rates:

Duration, minutes..	5	10	15	20	25	30	35	40	45	50	60	80	100	120
Rates pr. hr. (ins.)..	8.00	1.80	1.40	1.20	1.08	1.00	0.94	0.90	0.86	0.84	0.75	0.60	0.54	0.50

In the northern part of the United States, especially in the colder months of the year, rains of the intensities shown in the above table seldom occur. In all cases where no storm of sufficient intensity to entitle it to a place in the full table has occurred, the greatest rainfall of any single storm has been given, also the greatest hourly fall during that storm.

Table XI gives the record of excessive precipitation at all stations from which reports are received.

#### NOTES EXPLANATORY OF THE CHARTS.

Chart I.—Tracks of centers of high areas. The roman letters show number and order of centers of high areas. The figures within the circles show the days of the month; the letters *a* and *p* indicate, respectively, the 8 a. m. and 8 p. m., seventy-fifth meridian time, observations. The queries (?) on the tracks show that the centers could not be satisfactorily located. Within each circle is given the highest barometric reading reported near the center. A blank indicates that no reports were available. A wavy line indicates the axis of a ridge of high pressure.

Chart II.—Tracks of centers of low areas. The roman letters show number and order of centers of low areas. The figures within the circles show the days of the month; the letters *a* and *p* indicate, respectively, the 8 a. m. and 8 p. m., seventy-fifth meridian time, observations. The queries (?) on the tracks show that the centers could not be satisfactorily located. Within each circle is given the lowest barometric reading reported near the center. A blank indicates that no reports were available. A wavy line indicates the axis of a trough or long oval area of low pressure.

Chart III.—Total precipitation. The scale of shades show-

ing the depth of rainfall is given on the chart itself. For isolated stations the rainfall is given in inches and tenths, when appreciable; otherwise, a "trace" is indicated by a capital T, and no rain at all, by 0.0.

Chart IV.—Sea-level isobars and isotherms, and resultant winds. The wind directions on this Chart are the computed resultants of observations at 8 a. m. and 8 p. m., daily; the resultant duration is shown by figures attached to each arrow. The temperatures are the means of daily maxima and minima and are reduced to sea level. The pressures are the means of 8 a. m. and 8 p. m. observations, daily, and are reduced to sea level and to standard gravity. The reduction for 30 inches of the mercurial barometer, as formerly shown by the marginal figures for each degree of latitude, has already been applied.

Chart V.—Hydrographs for seven principal rivers of the United States.

Chart VI.—Surface temperatures; maximum, minimum, and mean. Lines of equal monthly mean temperature in red; lines of equal maximum temperature in black; and lines of equal minimum temperature (dotted) also in black.

Chart VII.—Percentage of sunshine. The average cloudiness at each Weather Bureau station is determined by numerous personal observations during the day. The difference between the observed cloudiness and 100, it is assumed, represents the percentage of sunshine, and the values thus obtained have been used in preparing Chart VII.

Chart VIII.—The total snowfall. This is based on the reports from all available observers and shows the depth of the snowfall during the month in inches. In general, the depth is shown by lines and areas of equal snowfall, but in some cases figures are also given for special localities.

Chart IX.—Depth of snow on ground. This chart is based essentially upon reports from regular and special observers and shows the depth of snow lying on the ground at the end of the month, which is, therefore, the accumulated excess of the snowfall over its loss by melting, evaporation, and settling.

TABLE I.—Climatological data for Weather Bureau Stations, November, 1898.

Stations.	Elevation of instruments.		Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.						Precipitation, in inches.		Wind.		Clear days.					
	Barometer above sea level, feet.	Thermometers above ground.	Mean actual, 8 a.m. and 8 p.m. + 2°.	Mean reduced.	Departure from normal.	Mean max. and min., + 2°.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Mean minimum.	Greatest daily range.	Total.	Departure from normal.	Days with 0.1 or more.	Total movement, miles.	Miles per hour.	Maximum velocity.	
	Anemometer above ground.				Mean reduced.															
New England.																				
Eastport.	76	69	74	29.86	29.95	- .02	39.0	0.0	18	25	34	6.21	2.2	10,149	n.	52	27	10,8	6.3	
Portland, Me.	103	81	89	29.86	29.97	- .04	38.6	+ 0.6	58	24	18	5.51	+ 1.5	13	6,084	n.	42	6	16,7	22.6
Northfield.	872	15	65	29.09	30.07	+ .03	32.4	- 0.5	61	6	40	1	1.9	10	6,944	s.	42	6	17,6	13.3
Boston.	125	115	181	29.87	30.01	- .02	43.0	+ 1.4	63	24	48	25	2.5	28	1.47	+ 1.3	10	14,9	17.8	
Nantucket.	14	43	54	29.98	29.99	- .06	44.8	+ 0.1	60	11	50	29	24	40	5.82	+ 0.8	13	8,888	n.	
Woods Hole.	22	51	57				44.0	+ 0.7	62	6	48	25	27	40	5.15	+ 1.6	14	13,869	n.	
Vineyard Haven.	20						45.0	+ 1.3	63	6	51	25	28	39	6.94	+ 2.1	13	15,000	n.	
Block Island.	27	39	48	29.99	30.02	- .04	43.6	- 1.3	61	6	49	27	28	38	7.55	+ 3.4	13	7,780	n.	
Narragansett.	10						40.6	- 1.4	60	6	48	20	26	34	6.84	+ 2.7	13	45	n.w.	
New Haven.	107	118	140	29.92	30.04	- .03	41.0	- 0.1	60	6	48	25	26	37	5.69	+ 1.8	12	7,780	n.	
Mid. Atlan. States.							44.4	- 0.3	60	6	48	20	26	34	7.6	+ 0.8	13	10,149	n.	
Albany.	97	84	113	29.97	30.08	+ .01	38.6	- 0.6	59	6	46	15	26	32	3.15	+ 4.0	14	5,866	s.	
Binghamton.	875	79	90				39.4	+ 0.4	61	4	46	15	27	31	3.15	+ 0.8	13	5,274	s.	
New York.	314	313	346	29.73	30.07	- .01	44.6	+ 1.2	63	51	25	27	32	41	7.6	+ 2.1	12	13,580	n.w.	
Harrisburg.	377	94	104				42.4	0.0	65	10	49	25	26	33	3.15	+ 0.3	12	6,200	w.	
Philadelphia.	117	168	184	29.97	30.10	- .01	44.6	+ 0.7	66	5	51	26	27	35	7.19	+ 4.0	14	7,354	n.w.	
Atlantic City.	52	68	76	30.03	30.09	- .01	44.1	- 0.6	62	2	50	24	28	36	5.51	+ 2.0	13	6,668	n.w.	
Cape May.	24	52	70	30.09	30.11	- .01	46.2	- 0.4	63	10	50	26	27	42	4.38	+ 0.7	13	10,009	n.w.	
Baltimore.	123	68	82	29.98	30.11	- .01	44.6	- 0.8	67	10	52	24	27	37	7.1	+ 1.3	14	3,559	w.	
Washington.	112	59	76	30.01	30.14	+ .01	44.0	- 0.5	69	10	52	22	26	36	3.12	+ 0.3	13	5,152	n.w.	
Cape Henry.	5	34					50.4	- 1.5	78	10	57	30	26	44	3.48	+ 0.1	13	4,186	s.	
Lynchburg.	685	83	88	29.41	30.17	+ .03	45.0	- 1.3	71	9	54	24	27	36	2.61	+ 0.3	11	3,275	n.w.	
Norfolk.	57	88	93	30.09	30.16	+ .04	49.9	- 0.4	76	10	57	29	27	43	2.90	- 0.2	14	6,678	e.	
Richmond.	144	98	105				47.0	- 1.1	71	9	55	26	27	39	3.1	- 0.2	13	20	s.	
S. Atlantic States.							53.8	- 1.1	73	9	56	22	27	39	7.7	+ 0.7	13	4,186	n.	
Charlotte.	773	68	76	29.33	30.17	+ .03	47.6	- 2.3	73	9	56	22	27	38	2.42	+ 0.6	10	4,869	n.	
Hatteras.	11	17	36	30.14	30.15	+ .04	54.7	- 0.9	74	10	60	31	27	49	8.0	+ 1.1	12	11,122	n.	
Kittyhawk.	9	12	30				52.8	- 0.7	75	10	61	28	27	45	2.6	+ 0.6	12	10,640	n.	
Raleigh.	375	93	101	29.77	30.18	+ .01	48.9	- 0.7	73	9	58	24	27	45	7.23	+ 0.6	14	5,891	n.	
Wilmington.	78	82	90	30.09	30.18	- .05	53.8	- 0.8	76	5	62	27	27	45	4.44	+ 0.2	10	6,118	s.	
Charleston.	48	14	92	30.13	30.18	+ .05	56.9	- 0.7	77	10	64	30	27	50	5.78	+ 1.6	15	8,252	n.	
Columbia.	5						51.0	- 3.9	75	9	61	24	27	40	3.42	+ 0.2	13	12,8	s.	
Augusta.	180	89	103	29.98	30.17	+ .04	52.0	- 1.4	77	5	62	26	27	42	5.10	+ 2.0	13	4,487	n.	
Savannah.	82	63	89	30.08	30.17	+ .02	57.2	- 0.6	73	10	65	31	27	49	5.48	+ 4.0	11	6,355	n.	
Jacksonville.	43	89	84	30.09	30.14	+ .02	62.6	+ 1.2	81	5	71	36	27	54	5.85	+ 0.2	15	5,421	n.	
Florida Peninsula.							72.1	+ 1.0	73	5	57	18	27	40	8.0	+ 0.8	13	8,640	e.	
Jupiter.	28	13	30	30.06	30.09	- .01	72.9	+ 1.1	82	29	78	56	30	68	1.11	+ 2.3	8	8,640	e.	
Key West.	22	43	50	30.05	30.07	+ .01	75.6	+ 1.4	84	11	79	67	1	72	2.24	+ 0.0	11	8,278	e.	
Tampa.	36	60	67	30.06	30.10	- .01	87.9	+ 0.5	84	5	76	46	27	60	1.96	+ 0.0	4	4,794	e.	
East Gulf States.							55.4	- 2.4	73	5	57	32	27	45	7.7	+ 1.9	13	9,683	n.w.	
Atlanta.	1,131	92	126	28.97	30.19	+ .02	48.6	- 3.2	73	5	57	18	27	40	3.96	+ 0.2	11	6,933	n.w.	
Pensacola.	56	78	90	30.09	30.15	+ .02	57.7	- 1.5	73	3	66	32	25	50	6.78	+ 3.0	13	7,484	n.w.	
Mobile.	57	88	96	30.10	30.16	+ .02	55.6	- 2.3	77	3	64	31	24	47	4.82	+ 3.6	14	5,737	n.	
Montgomery.	231	100	112	29.92	30.16	- .00	53.1	- 2.1	78	5	62	26	27	44	7.09	+ 3.7	12	5,249	e.	
Vicksburg.	247	65	73	29.87	30.15	- .01	52.2	- 3.2	79	4	61	26	22	43	4.74	+ 0.6	15	5,062	se.	
New Orleans.	54	112	120	30.09	30.15	+ .03	57.4	- 3.3	81	5	65	34	23	50	5.0	+ 1.0	14	7,049	n.	
Port Eads.	27						63.5	- 1.3	78	* 7	70	43	22	58	3.1	- 0.5	13	5,421	n.	
West Gulf States.							53.8	- 2.7	73	5	57	18	27	40	4.59	+ 1.8	8	5,421	n.	
Shreveport.	249	77	84	29.86	30.13	- .01	52.0	- 2.6	88	5	62	25	22	42	4.45	+ 0.5	8	5,589	se.	
Fort Smith.	481	63	72	29.58	30.10	- .02	48.0	- 1.3	78	19	59	19	21	57	3.86	+ 2.1	4	5,177	e.	
Little Rock.	357	98	100	29.76	30.16	+ .02	48.3	- 2.6	78	5	58	19	22	53	6.78	+ 3.6	5	7,484	s.	
Corpus Christi.	20	42	50	30.00	30.11	+ .01	60.2	- 2.8	80	18	66	26	27	44	4.82	+ 3.6	12	9,615	n.	
Fort Worth.	670	106	114				51.0	- 0.0	85	19	62	23	22	40	4.43	- 0.6	11	7,674	n.	
Galveston.	54	83	96	30.05	30.10	- .02	58.2	- 4.2	81	5	64	34	23	52	5.65	+ 1.2	14	8,001	sw.	
Palestine.	510	64	61	29.58	30.14	- .01	53.2	- 3.0	85	5	64	26	23	43	4.79	- 0.3	11	5,403	se.	
San Antonio.	704	95	104	29.56	30.11	- .02	56.9	- 2.1	81	5	67	20	24	47	5.0	- 0.7	9	6,735	s.	
Ohio Val. & Tenn.							43.6	- 1.4	73	21	52	14	27	37	7.4	- 1.1	13	5,386	n.	
Chattanooga.	762	106	112	29.38	30.21	+ .05	46.7	- 3.2	70	3	56	18	27	38	2.31	- 1.6	11	5,828	se.	
Knoxville.	1,004	10	88	29.10	30.19	+ .01	44.0	- 2.6	73	5	54	16	27	34	3.35	- 1.7	11	5,355	ne.	
Memphis.	339	140	154	29.73	30.16	+ .02	49.0	- 0.9	75	5	58	20	27	41	4.42	- 1.4	7	7,452	s.	
Nashville.	545	128	134	29.56	30.16	+ .03	46.2	- 1.8	74	4	55	16	27	38	3.09	- 0.8	9	5,526	s.	
Lexington.	989	75	104	29.05	30.14	+ .03	43.0	- 0.6	71	4	51	12	27	37	3.74	- 0.7	13	8,076	se.	
Louisville.	525	114	136	29.56	30.15	+ .02	44.7	- 0.6	74	4	53	14	26	36	2.55	- 1.5	11	6,528	se.	
Evansville.	434	73	82																	

TABLE I.—Climatological data for Weather Bureau Stations, November, 1898—Continued.

Stations.	Elevation of instruments		Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.										Precipitation, in inches.		Wind.																		
	Barometer above sea level, feet.	Thermometers above ground.	Mean scatral, 8 a.m. and 8 p.m. + 2.	Mean reduced.	Departure from normal.	Mean max. and min. + 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean wet thermometer.	Mean temperature of the dew-point.	Mean relative humidity, per cent.	Total.	Departure from normal.	Days with 0, or more.	Total movement, miles.	Prevailing direction.	Miles per hour.	Maximum velocity.	Clear days.										
																								Cloudy days.	Average cloudiness, tenths.	Total snowfall.									
Up Miss. Fal.—Con.																																			
Davenport.....	599	71	79	29.37	30.04	-.05	34.6	-.2	68	4	43	—	1	26	26	25	33	29	24	71	1.37	—	12	6,430	sw.	87	n.w.	5	11	8	11	5.3	6.5		
Des Moines.....	867	84	88	29.11	30.08	-.02	34.1	-.2	69	20	44	—	2	26	26	25	34	30	25	73	1.15	—	10	6,194	n.w.	37	n.w.	4	16	6	4	2	12.3		
Dubuque.....	638	101	109	29.25	30.04	-.04	33.8	—	1.2	67	4	42	—	2	26	25	34	30	25	73	1.52	—	10	6,158	se.	42	n.w.	5	11	9	10	5.0	2.9		
Keokuk.....	614	64	78	29.40	30.08	-.01	38.4	—	0.4	72	7	47	—	0	26	30	32	38	35	34	74	2.94	—	10	6,710	sw.	36	n.w.	5	12	12	12	6.4	2.5	
Cairo.....	359	87	93	29.74	30.13	+.02	45.2	—	1.0	75	5	54	15	27	37	40	40	40	38	74	1.55	—	9	8,873	s.	42	sw.	21	8	13	9	5.4	T.		
Springfield, Ill.....	644	82	92	29.38	30.09	-.02	38.2	—	2.7	69	4	45	2	26	31	26	33	32	28	73	2.94	—	9	7,806	s.	46	s.	21	11	10	10	5.1	0.6		
Hannibal.....	534	75	107	.....	.....	.....	39.5	—	0.7	73	4	48	4	26	31	31	31	31	28	73	2.58	—	10	7,568	sw.	44	s.	21	11	20	20	3.8	1.2		
St. Louis.....	567	111	210	29.49	30.12	-.00	43.1	—	0.5	74	3	51	10	26	35	45	37	32	32	73	2.07	—	8	8,040	s.	58	sw.	21	11	10	9	4.8	0.5		
Missouri Valley.....							35.1	—	2.0	76	20	51	6	26	26	26	35	31	27	79	1.18	—	8	8,040	s.	35	n.w.	5	12	10	8	5.2	0.9		
Columbia.....	.....	4	84	29.04	30.11	—	40.2	—	2.3	76	20	51	6	26	26	26	34	33	26	65	2.39	—	6	10	7,030	s.	35	se.	20	14	9	4	2	7.4	
Kansas City.....	968	78	95	29.04	30.11	—	40.3	—	0.4	73	3	49	6	26	23	32	32	36	29	65	2.72	—	5	9,488	se.	39	w.	21	11	12	12	6.5	0.8		
Springfield, Mo.....	1,324	100	103	28.66	30.11	—	41.8	—	1.7	72	20	50	6	26	23	33	34	36	29	65	2.96	—	6	8,782	se.	43	w.	21	11	12	12	5.2	0.8		
Topeka.....	81	.....	.....	39.4	—	1.8	76	7	49	—	4	23	23	23	29	34	34	36	32	68	1.13	—	2	6,887	w.	48	n.w.	22	14	8	8	4.4	7.7		
Lincoln.....	1,199	74	84	28.74	30.07	—	34.3	—	3.8	76	3	45	—	2	26	23	24	34	30	28	68	0.95	—	6	8,887	s.	48	n.w.	22	14	8	8	4.4	7.7	
Omaha.....	1,103	92	97	28.84	30.06	—	35.1	—	1.5	76	3	45	—	1	26	23	26	46	29	23	68	1.20	+	1	6,168	n.w.	34	w.	21	13	10	7	4.6	11.9	
Sioux City.....	1,139	96	164	.....	.....	.....	36.1	—	2.2	71	3	41	—	4	23	23	34	34	30	28	68	0.45	—	3	10,262	n.w.	60	n.w.	22	14	6	10	4.8	8.0	
Pierre.....	1,572	50	62	28.31	30.06	—	30.3	—	2.6	71	3	41	—	10	22	18	43	22	12	55	1.17	—	3	7,967	n.w.	59	n.w.	21	13	12	12	5.1	1.7		
Huron.....	1,806	56	67	28.58	30.06	—	36.8	—	2.7	68	3	39	14	21	16	70	23	21	37	68	0.25	—	4	9,318	n.w.	45	n.w.	21	10	16	4	4.7	2.0		
Yankton.....	1,234	52	58	.....	.....	.....	31.8	—	1.0	78	3	43	—	6	22	18	46	25	18	66	0.60	+	1	7,429	n.w.	46	n.w.	21	15	7	5	5.5	2.5		
Northern Slope.....							29.6	—	2.8	76	2	37	—	7	20	19	44	24	20	76	0.24	—	7	9,295	sw.	58	n.w.	6	8	6	5	5.3	2.4		
Havre.....	2,494	46	47	27.24	29.97	—	12	28.3	—	1.6	59	6	37	—	7	20	19	44	24	20	76	0.24	—	7	9,295	sw.	58	n.w.	6	8	6	5	5.3	2.4	
Miles City.....	2,372	41	49	27.42	30.03	—	10	28.4	—	2.9	60	3	38	—	12	22	19	32	24	20	77	0.92	+	5	4,626	sw.	36	w.	5	13	13	12	4.1	7.3	
Helena.....	4,106	88	93	25.79	30.13	—	01	29.1	—	2.4	51	6	36	—	10	21	20	40	24	16	60	0.66	—	0	10	5,721	sw.	45	w.	3	10	17	17	6.5	0.0
Rapid City.....	3,251	46	50	26.55	30.04	—	10	31.3	—	3.6	68	19	43	—	7	22	20	42	24	16	60	0.06	—	0	5,644	n.w.	36	n.w.	21	11	13	12	4.8	0.6	
Cheyenne.....	6,084	58	62	28.91	30.18	—	08	28.6	—	5.6	66	19	41	—	8	21	16	49	22	12	60	1.58	+	1	8,301	n.w.	54	n.w.	4	14	12	12	4.1	15.8	
Lander.....	5,372	28	36	24.58	30.13	—	07	30.0	—	0.4	64	6	44	—	9	21	16	47	23	13	60	0.25	+	0	3,195	sw.	42	w.	6	13	12	12	3.4	2.5	
North Platte.....	2,826	43	52	27.04	30.11	—	04	31.4	—	3.8	68	3	45	—	6	22	18	46	25	18	66	0.51	+	0	6,637	n.w.	45	n.	21	18	12	5	4.4	6.5	
Middle Slope.....							39.1	—	2.4	76	2	37	—	7	21	22	57	27	15	51	0.85	+	0	5,908	s.	50	n.w.	28	17	10	10	3.6	9.0		
Denver.....	5,290	79	151	24.66	30.14	—	04	35.2	—	2.8	74	19	48	—	2	21	22	57	27	15	51	0.85	+	0	5,908	s.	50	n.w.	28	17	10	8	2.6	2.5	
Pueblo.....	4,682	74	81	25.25	30.09	—	04	36.8	—	2.0	74	19	52	—	4	22	22	49	29	17	54	0.43	+	0	5,268	w.	52	n.	20	13	11	11	6.4	2.6	
Concordia.....	1,308	43	47	28.54	30.08	—	06	37.0	—	3.0	68	27	47	—	5	23	27	54	30	23	67	1.09	+	0	5,730	s.	30	s.	4	13	11	11	6.3	10.9	
Dodge.....	2,504	44	52	27.39	30.09	—	02	38.8	—	1.4	78	7	51	—	5	23	26	56	30	24	66	0.96	+	0	5,630	n.w.	21	18	8	4	3.4	7.5			
Wichita.....	1,351	78	55	25.61	30.09	—	04	41.0	—	1.8	73	6	53	—	7	23	24	43	33	25	61	1.13	+	0	7,473	s.	36	s.	7	16	8	8	3.4	5.1	
Oklahoma.....	1,218	54	62	28.78	30.11	—	01	46.6	—	1.6	82	19	58	14	21	34	50	58	33	33	60	0.66	—	0	8,408	s.	40	s.	7	15	9	9	3.5	0.2	
Southern Plateau.....							46.6	—	1.6	82	19	58	14	21	34	50	58	33	33	60	0.66	—	0	8,408	s.	36	n.w.	21	13	10	10	4.0	0.9		
El Paso.....	3,767	10	110	26.19	30.06	—	05	52.2	+	0.7	81	7	66	20	22	38	42	38	21	38	0.16	—	0	8,595	n.w.	64	sw.	20	20	20	20	8	2.1		
Santa Fe.....	6,998	47	50	23.22	30.09	—	04	37.0	—	0.6	62	7	47	12	22	27	30	28	14	45	0.27	—	0	8,595	se.	41	sw.	20	25	20	20	3.2	2.6		
Flagstaff.....	6,885	12	25	23.35	30.19	—	04	34.8	—	0.8	68	6	52	3	21	28	56	30	24	66	0.96	+	0	5,730	s.	30	s.	4	13	11	11	6.4	10.9		
Phenix.....	1,076	47	57	28.83	29.98	—	07	57.4	—	0.5	90	6	73	30	23	42	43	35	35	61	1.01	+	0	6,640	e.	26	w.	20	24	4	1	2.9	7		

TABLE II.—*Meteorological record of voluntary and other cooperating observers, November, 1898.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Alabama.</i>																	
Aleo †.....	°	°	°	In. s.	In. s.	Arizona—Cont'd.	°	°	°	In. s.	In. s.	California—Cont'd.	°	°	°	In. s.	In. s.
Ashville †.....	79	27	53.5	8.26		Tuba .....	81	19	45.4	0.06		East Brother L. H. ....	71	21	40.6	0.70	11.0
Bermuda†.....	74	17	48.4	4.25		Tucson †.....	90	21	54.5	0.85		Edmonton * <sup>1</sup> .....	71	21	40.6	4.10	
Birmingham†.....	78	27	54.5	9.33		Walnut Grove.....	.....	.....	.....	0.06		Elsinore .....	94	28	59.1	0.04	
Bridgeport†.....	78	21	51.2	5.28		White Hills.....	78	30	52.7	0.02		Escondido .....	89	24	52.2	0.11	
Citronelle†.....	79	30	55.2	8.22		Willcox.....	.....	.....	.....	0.08		Fallbrook * <sup>1</sup> .....	97	39	55.2	0.02	
Decatur†.....	73	15	47.4	3.37		Williams.....	71	7	36.7	0.60	6.0	Folsom City * <sup>1</sup> .....	78	34	52.8	1.54	
Demopolis.....	79	27	56.0	5.38		Winslow.....	70	14	41.2	T.		Fordyce Dam .....	.....	.....	.....	5.78	24.0
Elba.....	79	27	52.0	9.68		Yarnell.....	.....	.....	.....	0.70		Fort Bragg .....	.....	.....	.....	3.09	
Eufaula †.....	79	26	52.9	7.52		<i>Arkansas.</i>						Fort Romie .....	91	22	51.6	0.19	
Eufaula b.....	.....	.....	.....	8.40		Amity .....	80	20	48.4	4.40		Fort Ross .....	76	37	52.4	2.74	
Evergreen.....	.....	26	.....	9.00		Beebranch.....	83	12	46.8	2.20		Fort Tejon .....	.....	.....	.....	0.70	
Florence †.....	.....	.....	8.50		Blanchard Springs†.....	78	30	49.2	6.19		Georgetown .....	77	30	50.0	4.34	T.	
Florence b†.....	73	19	48.3	3.62		Brinkley.....	76	20	50.4	3.35		Glendora .....	.....	.....	.....	0.06	
Fort Deposit.....	77	27	52.0	8.36		Camden a†.....	80	22	49.2	4.77		Goshen * <sup>5</sup> .....	76	29	51.8	0.15	
Gadsden.....	74	18	47.0	3.87		Camden b†.....	74	19	44.7	.....		Grand Island * <sup>2</sup> .....	82	29	55.4	0.50	
Goodwater.....	87	27	50.8	5.32		Canton * <sup>1</sup> .....	74	19	49.1	2.36		Grass Valley .....	.....	.....	.....	4.31	
Greensboro†.....	78	25	50.8	5.82		Conway.....	82	19	45.0	2.21		Greenville * <sup>1</sup> .....	76	19	39.4	2.15	1.0
Hamilton.....	76	20	46.9	3.52		Corning.....	78	16	45.0	2.21		Healdsburg * <sup>1</sup> .....	81	25	55.6	1.06	
Healing Springs.....	80	27	52.0	9.78		Dallas.....	75	17	46.1	2.89		Hollister.....	86	23	52.4	0.36	
Highland Home†.....	82	27	53.7	7.02		Dardanelle.....	.....	.....	.....	1.98		Hueneme (near) .....	87	40	59.3	T.	
Jasper.....	.....	.....	4.78		Elon†.....	80	23	50.1	6.46		Humboldt L. H. ....	.....	.....	.....	4.82		
Livingston.....	80	27	50.4	5.99		Fayetteville†.....	77	11	45.7	2.57		Indio * <sup>1</sup> .....	93	33	59.2	0.00	
Lock No. 4.....	73	21	47.8	4.84		Fulton†.....	.....	.....	.....	3.94		Iowa Hill * <sup>1</sup> .....	76	34	50.2	4.03	
Madison Station†.....	72	.....	2.93		Hardy.....	77	15	45.0	2.65		Jackson .....	76	30	50.3	2.11		
Maplegrove.....	74	18	46.6	3.66		Helena a†.....	80	21	51.8	3.15		Jolon .....	77	30	46.4	0.40	
Marion†.....	77	25	54.8	3.16		Helena b.....	80	21	51.8	3.15		Keene * <sup>1</sup> .....	77	30	49.8	2.99	
Mount Willing†.....	85	22	54.3	8.77		Hot Springs b.....	.....	.....	.....	2.88		Kennedy Gold Mine .....	77	30	49.8	0.17	
Newbern†.....	80	26	51.1	6.02		Jonesboro.....	77	18	46.4	1.59		Kernville .....	.....	.....	.....	1.77	
Newton.....	80	25	52.0	7.17		Keesees Ferry†.....	74	14	45.2	2.69		King City * <sup>1</sup> .....	78	28	45.8	0.22	
Oneonta.....	78	12	47.6	4.03		Lacrosse†.....	77	15	44.2	1.50		Kingsburg * <sup>5</sup> .....	78	30	52.7	0.20	
Opellka†.....	78	20	50.7	7.26		Lonoake * <sup>1</sup> .....	75	23	47.8	3.33		Kono Tayee .....	70	39	51.6	1.15	
Oxanna.....	74	16	48.6	4.32		Luna Landing * <sup>6</sup> .....	80	25	50.1	5.47		Lagrange * <sup>6</sup> .....	82	32	54.4	0.86	
Pineapple.....	80	26	53.7	6.55		Lutherville * <sup>1</sup> .....	81	20	49.3	.....		Laporte * <sup>1</sup> .....	67	18	38.1	6.67	15.5
Pushmataha†.....	75	27	50.3	6.93		Malvern.....	82	20	48.0	4.11		Las Fuentes Ranch .....	.....	.....	.....	.....	
Riverton†.....	78	17	46.2	3.42		Marianna * <sup>1</sup> .....	78	24	50.2	.....		Lemoore a * <sup>1</sup> .....	78	26	47.3	0.22	
Rockmills.....	75	20	50.8	6.49		Marvell.....	78	22	49.8	3.18		Lick Observatory .....	75	28	46.5	1.23	0.1
Scottsboro†.....	71	17	45.4	4.42		Mossville.....	69	9	42.0	2.60		Limekiln .....	82	33	54.4	0.76	
Selma†.....	79	26	50.6	5.72		Mount Nebo.....	73	12	45.4	2.19		Lime Point L. H. ....	.....	.....	.....	0.76	
Talladega.....	81	21	50.4	5.95		New Gascony.....	73	22	48.3	3.20		Lodi .....	78	33	53.1	0.66	
Tallassee.....	.....	.....	7.12		Newport a†.....	.....	.....	.....	2.23		Los Alamos .....	.....	.....	.....	0.00		
Thomasville.....	80	26	55.0	2.41		Newport b.....	76	17	45.2	2.52		Los Gatos b.....	78	36	52.8	0.46	
Tuscaloosa†.....	78	24	49.4	4.39		Osceola.....	70	12	42.2	.....		Malakoff Mine .....	78	29	48.4	5.66	
Union†.....	.....	.....	4.70		Oregon.....	78	17	45.8	3.61		Mammoth Tank * <sup>1</sup> .....	93	44	60.0	T.		
Union Springs†.....	82	24	52.0	8.59		Ozark.....	76	18	48.9	2.18		Manzana .....	82	29	51.2	0.46	
Uniontown†.....	79	27	52.1	5.73		Picayune†.....	84	19	49.5	3.57		Merced * <sup>1</sup> .....	84	30	53.0	0.20	
Valleyhead.....	71	18	46.0	1.61		Pinebluff†.....	79	20	49.7	3.96		Mills College .....	.....	.....	.....	1.04	
Warrior.....	.....	.....	5.81		Pocahontas.....	72	19	44.8	2.30		Milo .....	.....	.....	.....	0.68		
Wetumpka.....	78	26	51.2	6.71		Pond.....	74	10	43.6	2.55		Milton (near)* <sup>1</sup> .....	78	31	53.4	1.20	
Wilsonville†.....	.....	.....	5.32		Powell.....	80	15	44.1	2.20		Modesto * <sup>1</sup> .....	82	34	56.4	0.38		
<i>Arizona.</i>						Prescott.....	82	21	50.8	3.74		Mohave * <sup>1</sup> .....	84	32	53.3	0.00	
Benson * <sup>1</sup> .....	71	33	54.9	T.	Rison.....	87	21	50.2	3.77		Mokelumne Hill * <sup>2</sup> .....	82	35	49.4	1.93		
Bisbee†.....	73	29	52.0	1.01		Russellville.....	74	18	46.3	2.65		Monterey * <sup>1</sup> .....	73	34	53.6	0.79	
Buckeye†.....	92	27	55.2	0.30		Silver Springs†.....	78	11	44.6	2.19	0.1	Mountain View .....	.....	.....	.....	0.35	
Calabasas.....	92	14	48.9	0.60		Spielerville.....	80	17	47.0	2.29		Mutah Flat .....	.....	.....	.....	0.00	
Camp Creek.....	84	34	57.8	1.10		Stamps.....	87	20	48.5	3.97		Needles .....	88	32	54.4	0.65	
Casa Grande * <sup>1</sup> .....	88	39	61.0	0.05		Stuttgart†.....	79	21	47.8	3.29		Nevada City .....	75	27	45.6	3.49	
Champie Camp.....	94	30	58.3	1.30		Texarkanat.....	84	22	51.8	3.13		Newhall * <sup>1</sup> .....	92	30	53.7	0.00	
Congress.....	86	32	58.4	0.59		Warren†.....	79	21	51.7	4.22		North Ontario .....	90	38	58.0	0.12	
Dragoon Summit * <sup>5</sup> .....	82	33	55.4	0.49		Washington.....	80	24	49.9	4.35		North San Juan .....	73	27	45.5	4.56	
Dudleyville.....	84	24	53.4	0.45		Wiggs * <sup>1</sup> .....	80	18	50.7	3.79		Oakland a.....	80	40	53.2	0.60	
Empire Ranch.....	79 <sup>b</sup>	20 <sup>b</sup>	50.6 <sup>b</sup>	0.73		Witts Springs†.....	73	10	44.6	2.81		Ogilby * <sup>1</sup> .....	95	45	67.6	0.00	
Fort Apache.....	77	20	44.4	0.57		Agnew.....	80	28	51.1	0.41		Oleta * <sup>1</sup> .....	76	30	46.6	2.34	
Fort Defiance.....	65	6	33.8	1.10		Anada.....	77	22	45.8	4.10		Orland * <sup>1</sup> .....	86	30	53.5	0.34	10.0
Fort Grant†.....	80	28	52.8	0.50		Arlington Heights.....	93	36	59.0	0.01		Palermo .....	81	31	52.5	1.16	
Fort Huachua†.....	80	21	53.3	1.20		Ballast Point L. H. ....	.....	.....	.....	2.0		Paso Robles b.....	81	22	50.0	0.30	
Fort Mohave.....	94	32	58.7	T.		Bear Valley.....	.....	.....	.....			Peachland * <sup>2</sup> .....	82	30	53.0	1.25	
Gilabend a * <sup>1</sup> .....	89	36	59.6	T.		Berkeley.....	78	41	53.7	0.97		Piedras Blancas L. H. ....	.....	.....	.....	0.45	
Holbrook†.....	74	10	40.2	0.13		Bishop.....	85	17	45.8	0.21		Pigeon Point L. H. ....	.....	.....	.....	0.88	
Hot Springs.....	86	38	58.6	0.75		Blue Lakes City.....	83	23	49.4	1.73		Pilot Creek .....	.....	.....	.....	4.70	
Jerome.....	77	27	49.0	0.70		Boca * <sup>1</sup> .....	64	8	28.7	1.14	7.0	Pine Crest .....	91	43	62.4	0.00	
Lochiel * <sup>1</sup> .....	78	28	49.9	1.75		Cisco * <sup>1</sup> .....	59	-11	29.4	1.00	7.5	Placerville * <sup>1</sup> .....	81	28	49.8	2.30	
Maricopa * <sup>1</sup> .....	95	30	60.2	0.40		Claremont.....	91	34</td									

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean.			Rain and melted snow.	Total depth of snow.	Maximum.			Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		
<i>California—Cont'd.</i>																
Salinas* <sup>1</sup> .....	°	°	°	Ins.	Ins.											
Salton* <sup>1</sup> .....	31	51.8	0.91													
San Bernardino* <sup>1</sup> .....	40	59.1	0.00													
San Jacinto.....	30	56.2	0.05													
San Leandro* <sup>1</sup> .....	26	54.4	0.18													
San Luis L. H. ....	41	57.1	0.96													
San Mateo* <sup>1</sup> .....	37	54.3	0.55													
San Miguel* <sup>1</sup> .....	32	50.8	0.19													
Santa Barbara a.....	42	59.1	0.00													
Santa Barbara L. H. ....																
Santa Clara a.....																
Santa Cruz b.....	29	53.0	0.86													
Santa Cruz L. H. ....																
Santa Maria.....	31	57.0	0.05													
Santa Monica* <sup>1</sup> .....	39	60.4	0.00													
Santa Paula.....	32	56.6	T.													
Santa Rosa* <sup>1</sup> .....	27	53.4	1.16													
Saticoy.....																
Shasta.....	30	51.6	2.89													
Sierra Madre.....	42	60.1	T.													
Sneddens Ranch.....																
Sonoma.....																
Stanford University.....	32	51.6	0.27													
Stockton.....	30	51.6	0.56													
Summerville* <sup>1</sup> .....	21	42.8	1.64													
Susanville* <sup>1</sup> .....	16	37.3	1.74													
Sutter Creek* <sup>5</sup> .....	26	43.6	1.73													
Tehama* <sup>1</sup> .....	35	54.6	0.63													
Tejon Ranch* <sup>1</sup> .....	34	52.8	0.57													
Templeton* <sup>1</sup> .....	26	47.0	0.20													
Thermalito.....	30	54.8	1.05													
Trinidad L. H. ....																
Truckee* <sup>1</sup> .....	3 38.0	2.95	20.0													
Tulare b.....	24	52.1	0.19													
Tulare c.....																
Turlock.....	25	49.4	2.02													
Ukiah.....	29	51.8	1.66													
Upper Lake.....																
Upper Mattole* <sup>1</sup> .....	31	50.3	4.86													
Vacaville a* <sup>1</sup> .....	34	56.1	0.44													
Ventura* <sup>1</sup> .....	35	55.2	T.													
Viralia* <sup>1</sup> .....	27	49.2	0.22													
Volcano Springs* <sup>1</sup> .....	37	57.5	0.00													
Walnut Creek.....	34	53.8	0.80													
West Palmate.....																
Westpoint.....																
Wheatland.....	25	50.8	1.35													
Williams* <sup>1</sup> .....	33	55.4	0.20													
Wilmington* <sup>1</sup> .....	47	60.1	0.00													
Wire Bridge* <sup>5</sup> .....	29	50.7	3.47													
Yerba Buena L. H. ....																
Yreka* <sup>1</sup> .....	18	40.3	2.74													
Yuba City* <sup>5</sup> .....	38	51.4	0.92													
<i>Colorado.</i>																
Alman....	9	22.3	0.96	15.0												
Antlers* <sup>1</sup> .....	1 31.2	0.79	5.5													
Arkins.....																
Boulder.....	6	36.6	1.76	23.5												
Boxelder.....																
Breckenridge* <sup>1</sup> .....	19.6	4.09	59.2													
Canyon* <sup>1</sup> .....	40.8	0.15	1.3													
Castlerock.....	8	32.1	1.00	10.5												
Cedaredge.....	35	43.0	2.0													
Cheyenne Wells.....	12	33.4	0.45	2.2												
Colbran.....																
Colorado Springs* <sup>1</sup> .....	34.2	0.18	2.3													
Cope.....	5 34.2															
Crook.....	11	33.3	0.35	3.5												
Delta.....	8	35.6	0.18	1.8												
Dumont* <sup>1</sup> .....																
Durango.....	7	35.0	0.88	6.5												
Fairview.....	14	28.8	0.85	11.0												
Fort Collins* <sup>1</sup> .....	11	30.3	1.24	11.5												
Fort Morgan.....	3	28.2	0.40	5.0												
Fox.....																
Garnett.....	14	21.0	0.50	5.5												
Georgetown.....	5	30.5	0.28	3.5												
Glen Eyrie* <sup>1</sup> .....	3 33.6	0.28	3.5													
Grand Junction* <sup>1</sup> .....	16	38.8	0.25													
Greeley.....	29.7	0.60	7.5													
Gunison.....	11	26.2	1.06	13.2												
Hamps.....	3	30.8	0.28	2.8												
Hoechne.....	4	36.4	0.74	8.0												
Holly.....																
Holyoke.....																
Hugo.....																
Huston* <sup>1</sup> .....	4 34.0	0.49	4.0													
Lake Moraine.....	9	24.6	0.82	15.1												
Lamar* <sup>1</sup> .....	4 39.8	0.46	3.2													
Laporte.....																
Las Animas* <sup>1</sup> .....	0	37.5	T.	T.												
Leadville (near)* <sup>1</sup> .....	24.5	2.26	34.8													
Leroy* <sup>1</sup> .....	34.5	0.65	5.5													
Longs Peak* <sup>1</sup> .....	12	26.8	1.60	23.0												
Loveland.....																
Mancos.....	1	31.5	0.40	3.8												

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Illinois</i> —Cont'd.						<i>Indiana</i> —Cont'd.						<i>Iowa</i> —Cont'd.					
Carlinville	72	4	40.2	2.63	2.0	Farmland	67	8	38.1	2.88	3.5	Hampton	65	o	o	In. <sup>s.</sup>	In. <sup>s.</sup>
Carlyle				2.44		Fort Wayne	68	5	36.4	3.56	4.5	Hawkeye	65	-10	30.1	2.52	14.1
Carrollton	68	2	38.6	1.84	0.6	Franklin* <sup>1</sup>	69	9	39.9	2.48	1.7	Hedrick* <sup>1</sup>	72	-6	33.4	0.83	8.0
Charleston	69	1	39.6	1.66	0.9	Greensburg	70	6	30.7	3.79	1.0	Hopeville*	69	-5	33.5	1.25	6.6
Chemung	65	-4	32.6	2.09	9.5	Hammond†	67	1	35.9	1.74	5.0	Humboldt†	66	-11	31.2	0.98	6.6
Chester				1.23		Hector	66	4	36.4	2.33	1.2	Independence†	66	-9	31.0	1.53	7.2
Cisne†	74	9	41.8	2.39	0.5	Huntington	62	7	35.8	3.48	3.5	Indianola†	69	-5	36.9	3.61	13.0
Coatsburg	70	-1	37.0	2.89	1.0	Jeffersonville	71	13	43.3	2.56	1.0	Iowa City a	70	-6	34.4	1.10	7.5
Cobden†	73	10	43.0	1.60		Knightstown†	68	6	37.4	2.60	2.5	Iowa Fallst.	65	-11	29.3	3.23	19.5
Cordova	67	-2	36.8			Kokomo†	68	4	38.6	3.12	1.8	Keosauqua	77	-1	36.4	1.41	4.0
Danville	80	-1	40.6	3.08	1.5	Lafayette†	69	0	37.2	3.37	1.6	Knoxville	69	-5	36.6	2.28	12.5
Decatur†	70	0	38.9	2.96	2.7	Laporte	65	7	35.2	3.65	12.1	Lamoni	69	-4	33.7	1.54	5.8
Dixon†	68	-2	34.0	1.19	2.0	Logansport† <sup>1</sup>	68	3	36.5	3.29		Lansing	66	-5	34.0	1.93	5.0
Dwight†	68	-1	34.7	2.50	5.0	Madison	70	9	41.4	2.90	1.2	Larchwood				0.49	4.0
Effingham†	70	4	40.4	2.30	0.3	Marengo†	71	10	42.0	2.83	1.4	Larrabee†	67	-11	29.5	1.05	9.2
Elgin	66	0	34.5	2.22	3.7	Marion†	69	2	37.2	3.55	4.5	Leclaire				1.19	6.0
Equality	73	14	43.1	1.10	1.5	Markle	68	7	37.2	2.80	3.0	Lemars	65	-7	30.4	0.80	8.0
Flora	71	6	41.4	2.41	T.	Mauzy†	69	4	38.6	3.29	2.8	Lemox	69	-3	33.4	1.36	4.1
Fort Sheridan	68	10	36.6	1.44	2.6	Michigan City* <sup>10</sup>	77	16	37.9			Logan†	69	-9	35.1	0.90	9.0
Friendsgrove†				2.58		Mount Vernon†	75	7	41.7	0.88		Maple Valley				1.67	13.5
Galva†	65	-4	34.8	2.19	11.4	Northfield†	67	1	37.4	2.89	3.0	Maquoketa	68	-5	35.7	0.94	10.8
Glenwood* <sup>1</sup>	68 <sup>1</sup>	1 <sup>r</sup>	35.8 <sup>r</sup>	2.48	5.0	Paoli	69	5	40.6	2.35	2.0	Marshall†	67	-8	32.4	1.84	
Grafton†				2.31		Peru	70	3	40.2	3.77	3.0	Mason City	68	-11	30.6		
Grayville	72	12	43.2	2.12		Princeton* <sup>1</sup>	69	12	42.2	1.95	2.0	Monticello	68	-7	33.0	1.42	12.0
Greenville†	68	5	39.3	2.26	0.6	Richmond	67	7	38.2	2.89	0.5	Moar	71	-5	35.0	0.84	3.0
Griggsville†	71	2	39.4	3.66		Rockville†	69	2	38.5	3.32	T.	Mountayr	70	-5	34.2	2.23	8.8
Halliday	75	14	43.0	1.20	2.0	Scottsburg	71	10	41.4	2.01	T.	Mount Pleasant				1.50	4.0
Havana†	72	4	41.0	2.24	2.0	Seymour	70	6	39.5	2.71	3.0	Mount Vernon a* <sup>1</sup>	68	-8	32.7	1.43	
Henry	69	-3	36.8	2.46		Shelbyville	65	6	37.9	2.72	3.0	Mount Vernon b	68	-5	32.0	1.48	7.0
Hillsboro†	71	3	40.1	2.32	0.5	South Bend†	68	7	37.0	3.61	14.5	New Hampton	62	-10	30.8	2.08	9.5
Joliet†	67	0	36.0	2.61	9.6	Syracuse†						Newton†	67	-8	32.5	2.19	10.0
Kankakee a	70	1	35.4	2.33		Terre Haute†	70	5	40.0	2.18	1.0	North McGregor				0.61	4.0
Kishwaukee				1.23		Topeka†	65	1	32.0	3.12	2.0	Northwood	62	-10	28.8	1.80	
Knoxville	69	-6	35.0	2.67	8.0	Valparaiso†	68	4	34.4	0.60	1.0	Odebolt	67	-7	31.2	2.16	19.5
Lagrange†	68	2	36.4	2.69	2.5	Vevay	71	12	41.5	3.35	1.0	Ogden	68	-13	32.3	1.27	11.4
LaHarpe	70	-1	38.2	1.65	5.0	Vincennes	74	10	41.6	4.00		Olin	74	-7	31.0	1.24	8.5
Lamarck†	65	-6	32.7	1.07	7.0	Washington†	76	8	42.8	2.16	T.	Osage* <sup>3</sup>				26.5	2.47
Lexington	69	-1	37.0	2.09	2.8	Winamac	67	0	36.8	4.13		Osceola	71	-5	33.6	1.50	6.0
Loami†				2.49	0.5	Worthington†	72	5	39.8	2.38	1.3	Oskaloosa†				33.8	1.50
McLeansboro†	72	10	42.9	1.26	2.0	Indian Territory.						Ottumwa	72	-4	35.0	0.33	5.0
Martinsville		4 <sup>d</sup>	39.8 <sup>c</sup>	2.29	0.5	Headlton†	68	12	40.6	1.85	4.0	Ovid†	71	-5	34.8	1.77	6.2
Martinton†	69	0	36.6	2.81	2.6	Kemp	87	21	50.4	2.30	2.0	Pella	69	-13	30.4	1.27	6.0
Mascoutah	72	10	41.1	2.43	1.0	Lehigh†	86	18	47.2	1.29		Pioneer	65 <sup>d</sup>	-9	31.0 <sup>a</sup>	1.60	16.0
Mattoon		5 <sup>c</sup>	40.2 <sup>c</sup>	2.02	0.8	South McAlester†	62	17	29.0	2.23	9.5	Plover	70	-8	29.6	0.99	7.6
Minonk†	68	-5	36.0	2.13	8.5	Tahlequah	82	10	47.7	2.36		Pringhar	62	-12	30.0	1.00	7.0
Monmouth†	69	-4	35.6	1.53	5.4	Tulsa†						Ridgway	65	-9	32.7	2.32	6.5
Morgan Park	67	10	37.7			Worthington†	75	11	44.2	2.32	T.	Rockwell City	66	-10	30.0	1.25	
Morrisonville†		1	38.8	3.09	1.0	Webbers Falls						Ruthven	66	-10	29.8	0.95	9.5
Mount Carmel†				2.54								Sac City†	66	-7	30.4	1.03	9.4
Mount Pulaski	70	0	39.2	2.26	1.8							St. Charles	70	-5	35.2	1.39	6.5
Mount Vernon	75	10	40.4	2.14	2.0							Sibley	64	-12	30.0	0.56	4.4
New Burnside†	73	9	43.8	0.99	0.2							Sidney	72	-1	34.4	1.59	17.3
Olney	77	7	41.8	2.14	0.2							Sigourney	71	-9	34.0	1.53	9.0
Oswego* <sup>1</sup>	68	-3	34.6	2.76	4.8							Spencer	65	-11	28.1	1.24	
Ottawa†	68	-3	35.6	2.88	5.5							Spirit Lake†	65	-17	29.0	0.86	8.8
Palestine†	70	9	37.6	3.15	0.8							Storm Lake	64	-9	30.8	0.99	5.5
Pana	70	4	38.6	2.48	1.0							Stuart	65	-5	29.6		
Paris		3 <sup>d</sup>	36.9 <sup>c</sup>	2.30								Tara	60	0	30.2	2.00	
Peoria a†		1	38.3	2.03								Thurman	74	-11	34.2	1.14	5.8
Peoria b†	70	1	38.3	2.03								Toledo	67	-8	32.0	1.99	9.8
Philo†	69	0	37.3	3.20	1.2							Villisca	71	-11	31.4	1.65	9.0
Plumhill†	72	10	42.8	2.29	1.6							Vinton <sup>1</sup>	65	-6	31.8 <sup>c</sup>	1.64	9.5
Rantoul†	70	9	36.8	3.28	4.2							Wapello	70	-2	38.3		
Raum	71	12	45.0	2.31	1.0							Washington	70	-7	32.3	1.05	7.0
Reynolds	68	-3	35.2	1.34	8.0							Washington	68	-7	31.9	1.97	9.0
Riley†	65	0	33.6	1.64	5.3							Waterloo	66	-7	31.0	0.56	
Robinson	72	5	40.7	2.52	T.							Waverly	64	-8	32.2	2.17	8.0
Roundgrove†	68	-4	34.0	1.20								Webster City	63	-6	30.8	1.69	9.0
St. Charles *† <sup>1</sup>	64	0	33.4	1.98	5.5							Westbend				1.55	13.0
Scales Mound	65	-6	33.4	1.37	5.0							West Branch	67	-4	33.5	1.17	4.5
Streator†				2.47	6.8							West Branch	75	-6	37.2	0.83	3.0
Sycamore†	65	-1	33.2	1.76	7.5							Whatcheer	75	-6	37.2	0.83	3.0
Tilden	73	10	42.6	1.88	2.0							Whitten <sup>1</sup>	67	-7	29.6	2.42	15.0
Tiskilwa†	67	-3	34.8	2.93	8.0							Wilton Junction†	67	-5	33.6	1.76	8.5
Tuscola†	70	0	37.2	2.60	0.2							Winterset†	69	-3	34.7	3.28	25.5
Walnut†	67	-2	35.8	1.70	7.0							Kansas.					
Wheaton* <sup>3</sup>	70	3	32.6	2.34	11.5												

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Kansas—Cont'd.</i>																	
Fallriver	o	o	o	In.	In.	Louisiana—Cont'd.	o	o	o	In.	In.	Massachusetts.	o	o	o	In.	In.
Fanning	75	— 1	38.0	1.12	4.0	Amitie+	80	22	54.1	10.89	T.	Adams	58	10	36.9	In.	In.
Fort Riley+	76	— 1	39.2	0.34	3.4	Bastrop+	81	22	51.6	6.41	Amherst	61	10	38.4	5.75	11.5	
Fort Scott	74	10	41.8	2.11	.....	Baton Rouge+	82	29	54.9	6.39	Attleboro	58	18	38.6	5.77	.....	
Frankfort	78	— 10	37.6	0.70	7.0	Cahoum	78	23	50.0	7.18	Bedford	62	17	39.6	5.64	15.0	
Garden City	74	— 2	39.0	1.55	7.0	Cheneyville+	83	30	52.6	5.00	Bluehill (summit)	67	17	39.6	7.19	23.0	
Gibson	78	— 2	36.2	1.00	10.0	Clinton+	79	28	54.2	5.79	Cambridge a	62	19	40.7	6.63	.....	
Gove*	81	0	36.3	0.80	8.0	Donaldsonville	82	30	55.6	12.03	Chestnut Hill	62	17	40.4	7.42	21.0	
Grenola						Emilie	79	30	54.6	7.22	Cohasset				6.82	16.0	
Horton	73	1	37.7	1.20	.....	Farmerville	84	23	50.1	6.96	Concord	63	15	38.6	5.02	10.4	
Hutchinson	83	9	42.1	1.12	5.7	Franklin+	85	33	54.8	7.73	Dudley	62*	14	38.9	5.72	24.0	
Independence	76	10	43.6	1.21	0.2	Grand Coteau	84	29	54.3	6.28	East Templeton*	56	15	35.2	6.43	25.5	
Lakin						Hammond	82	29	56.5	9.97	Fallriver	60	23	42.6	8.04	22.0	
Lawrence	76	5	39.5	1.47	2.8	Jeanerette	83	27	54.6	8.31	Fiskedale				5.44	23.0	
Lebanon	77	1	34.8	0.80	6.0	Jennings	85	27	55.3	4.83	Fitchburg a*	57	18	37.2	7.27	17.5	
Lebo+	75	5	39.3	2.25	2.0	Lafayette	82	29	54.4	8.00	Fitchburg b	61	15	38.4	6.76	19.7	
McPherson	78	4	40.6	1.13	.....	Lake Charles+	82	29	54.4	6.71	Framingham	61	17	40.0	7.24	19.0	
Manhattan b	78	— 4	38.0	1.43	9.0	Lake Providence				Groton	61	14	37.2	5.20	16.0		
Manhattan c*	— 7	34.2	1.30	8.0	Lawrence	81	36	59.4	6.48	Hanover	60	20	42.3	8.41	7.0		
Marion+	75	0	41.0	0.30	.....	Liberty Hill	83	24	50.8	5.97	Jefferson				7.50	24.2	
Meade+						Mansfield	83	21	50.2	6.37	Lawrence	61	18	39.6	4.63	12.0	
Medicine Lodge+	89	— 7	40.9	1.07	2.5	Melville	81	26	54.0	6.29	Leeds	62	11	36.8	6.54	16.0	
Minneapolis+	75	— 4	37.1	1.00	9.0	Montgomery	81	24	48.4	5.75	Leicester Hill	60	14	36.6	5.90	15.5	
Morantown	72	8	40.8	1.76	0.5	New Iberia	80	23	54.8	9.25	Long Plain				9.40	19.0	
Mount hope*	75	7	40.5	0.90	3.0	Oakridge	83	24	49.2	9.27	Lowell a	61	17	39.4	6.45	.....	
Ness City						Opelousas	82	22	50.4	6.63	Lowell b	63	18	39.2	.....		
Newton	75	5	39.8	1.12	.....	Oxford	82	22	50.4	6.63	Ludlow Center	56	6	34.3	5.95	25.0	
Norwich						Paincourtville+	82	29	55.6	7.97	Mansfield*	61	13	37.4	7.60	28.0	
Oberlin						Plain Dealing+	82	29	49.4	5.78	Middleboro	62	13	38.9	7.12	18.0	
Olathe+	72	3	38.9	1.68	4.0	Plaquemine	84	30	55.0	7.25	Monson	60	8	38.7	7.25	28.5	
Osage City+	77	2	40.0	1.61	.....	Rayne	84	28	54.4	9.50	New Bedford a	60	18	41.2	7.98	24.0	
Osborne						Robeline	83	18	50.3	6.05	New Bedford b	61	19	41.2	8.28	22.0	
Oswego	77	11	46.2	1.94	0.5	Ruston	80	24	51.7	5.29	New Salem	81	12	36.8	6.73	15.2	
Ottawa	74	2	38.2	1.75	4.0	Schriever	86	31	56.4	6.58	Pittsfield	56	13	36.0	4.92	9.0	
Phillipsburg	70	— 6	32.7	1.30	13.0	Shellbeach	78	31	57.7	7.24	Plymouth*	62*	18	41.2	8.52	13.0	
Pittsburg	72	11	42.0	1.85	T.	Southern University+	80	33	56.2	6.55	Princeton				6.01	16.5	
Rome*	77	10	42.8	1.09	2.0	Sugar Ex. Station	81	34	56.0	7.09	Salem				5.93	19.5	
Russell	76	— 6	37.8	1.25	8.0	Sugartown	80	29	53.9	5.20	Somerset*	65	20	42.0	7.62	23.0	
Salina+	75	— 4	37.8	0.88	8.0	Wallace	84	31	57.6	8.04	South Clinton				7.50	23.0	
Scott						White Sulphur Springs	87	16	52.6	7.94	Springfield Armory	64	17	39.6	6.93	21.0	
Sedan+	77	11	43.0	0.84	1.0	<i>Maine.</i>					Sterling				6.24	21.5	
Toronto	76	8	41.4	1.89	1.0	Bar Harbor	58	19	39.4	8.35	Taunton b	59	15	38.7	8.16	30.0	
Viroqua+	83	2	41.0	0.84	6.0	Belfast*	52	17	37.3	5.59	Taunton c	62	11	38.8	7.51	19.0	
Wallace						Calais	56	11	37.5	6.82	Turners Falls	59	12	37.5	4.42	8.0	
Wamego*	76	— 2	36.5	1.56	15.6	Cornish*	56	13	35.8	4.48	Webster				7.21	28.0	
Wellington	76	12	43.4	1.28	.....	Cumberland Mills	60	15	39.0	5.09	Westboro	62	15	40.1	5.95	15.0	
Winfield	81	10	43.8	1.25	2.0	Fairfield	63	15	37.3	3.71	Weston	60	16	39.2	6.06	16.8	
Winona						Farmington	60	7	35.8	4.40	Williamstown	58	10	35.8	8.25	.....	
Yates Center	77	6	40.4	1.89	2.0	Flagstaff	61	13	38.3	3.25	Winchendon				5.99	20.0	
<i>Kentucky.</i>						Gardiner	58	15	38.8	4.57	Worcester a	60	22	40.8	6.24	16.5	
Alpha*	18	45.6	4.32	T.	Lewiston	64	17	38.2	4.44	Worcester b	57*	16	41.0	8.86	19.2		
Bardstown	76	12	42.6	2.17	0.5	Mayfield	54	7	32.6	6.03	<i>Michigan.</i>						
Blandville	74	11	43.6	2.01	0.0	North Bridgton	60	9	37.9	6.10	Adrian	67	9	34.4	2.34	3.2	
Bowling Green b+	73	14	44.4	3.28	0.0	Orono	60	10	35.8	6.84	Agricultural College	68	9	33.1	2.72	15.5	
Burnside+						Petit Meau+	50	25	36.7	.....	Allegan	67	6	36.6	8.85	33.0	
Caddo	75	12	41.1	4.00	4.0	Winslow	59	14	37.2	3.86	Alma	67	5	33.8	2.22	18.0	
Canton*	75	15	45.3	2.63	T.					Ann Arbor	67	9	34.6	3.13	6.2		
Carlisle	89	14	41.9	1.78	0.4					Arbela	64	9	34.6	2.09	9.0		
Carrollton	72	18	41.8	2.75	T.					Baldwin	65	2	34.6	3.02	14.5		
Cattettsburg						Annapolis	65	25	43.8	4.69	Ball Mountain	58	10	33.8	2.01	4.5	
Earlington	76	11	44.0	2.83	T.	Bachmans Valley	64	17	40.4	5.52	Battle Creek	67	20	35.0	3.16	11.0	
Edmonton+	70	15	44.4	2.87	0.1	Boettcherville	65	14	40.9	1.42	Bay City b	67	13	34.2	2.59	8.0	
Ensor	72	12	43.5	2.71	2.0	Charlotte Hall	74	23	45.1	2.40	Berlin	63	7	33.8	3.13	11.2	
Enbank	72	11	41.6	3.93	0.2	Cherryfields	65	23	45.9	2.29	Berrien Springs	69	10	35.8	3.57	24.2	
Falmouth+						Chestertown	67	25	43.2	5.10	Big Point Sable*	60	14	39.2	10.0		
Fords Ferry	75	11	45.0	1.57	T.	Collegepark	69	28	45.0	4.18	Big Rapids	67	3	33.4	3.01		
Frankfort	70	18	46.6	.....		Cumberland b	63	23	42.1	5.62	Birmingham	64	10	35.4	3.70	5.0	
Georgetown	70	12	43.8	.....		Darlington	63	23	37.5	2.06	Bois Blanc*	67	20	39.7	1.70		
Greensburg+	76	14	42.2	2.77	0.2	Deerpark	66	— 6	42.6	4.18	Calumet	57	5	32.2	2.57	15.3	
Henderson+	75	15	44.4	1.51	0.5	Easton	67	26	43.2	4.14	Canal	68	6	32.0	3.39	16.2	
Hopkinsville f	77	13	45.0	3.70	T.	Ellicott City	66	19	41.9	5.00	Camden	68	6	35.0	2.91	2.8	
Irvington	71	10	42.0	2.36	0.5	Frederick	66	24	42.9	3.90	Charlevoix	68	5	35.2	2.18	4.0	
Leitchfield	72	12	42.4	3.08	0.5	Frostburg	61	11	37.6	2.62	Cheboygan	68	16	35.8	2.80	3.0	
Loretto	74	11	46.2	2.26	T.	Grantsville	68	9	36.8	3.24	Clinton	69	7	35.8	3.45	3.0	
Lyndon	80	11	41.0	2.60	0.8	Greatfalls	67	23	42.8	2.90	Coldwater	67	10	34.8	4.46	9.0	
Marrowbone	74	11	40.4	2.77	T.	Greenspring Furnace	66	21	41.6	2.59	Cold Tawa	69	15	34.7	1.28	....	
Maysville	78	13	43.0	3.00	1.4	Hagerstown	67	25	42.8	2.73	Eloise	67	9	36.8	3.15	1.2	
Middlesboro+	71	15	42.8	4.16	0.2	Hancock	67	21	41.9	2.53	Ewen	68	31	32.1	1.10	11.0	
Mount Hermon	73	14	44.2	3.80	T.	Jewell	68	21	43.7	3.57	Fairview	65</					

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			Stations	Temperature. (Fahrenheit.)			Precipita- tion.			Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean	Rain and melted snow.	Total depth of snow.	Mean.		Maximum.	Minimum.	Mean	Rain and melted snow.	Total depth of snow.	Mean.		Maximum.	Minimum.	Mean	Rain and melted snow.	Total depth of snow.	
<i>Michigan—Cont'd.</i>																				
Hillsdale	66	9	34.0	4.03	In.	In.	Minnesota—Cont'd.	59	c	o	In.	In.	9.0	Missouri—Cont'd.	o	o	o	In.	In.	2.0
Howell	66	8	35.4	2.14	6.5		Milaca	59	-14	26.2	0.90	9.0	2.22	Fayette	73	4	38.6	2.22	2.0	
Humboldt	59	7	27.6	1.61	2.0		Milan	64	-14	26.2	0.62	7.2	2.70	Fulton	72	1	37.8	1.02	5.2	
Ionia	67	7	33.8	1.79	14.0		Minneapolis a	58	-15	28.7	1.56	13.0	2.31	Gallatin*	72	16	47.2	1.02	5.2	
Ishpeming	61	5	30.4	1.53	5.9		Minneapolis b	58*	-23	26.2	1.46	12.5	2.31	Gayoso	73	4	39.3	1.94	9.0	
Ivan	65	13	34.4	1.99	4.2		Minneapolis City*	66	-12	31.7	1.96	10.0	2.39	Glasgow	73	14	40.2	2.39	0.5	
Jackson	67	10	35.1	3.36	.....		Montevideo	62	-11	26.9	0.59	5.2	2.39	Gordonville*	73	14	40.2	1.59	3.8	
Jeddo	63	11	34.8	3.33	8.5		Morris	61	-12	26.6	0.30	3.0	2.39	Gorin	73	14	40.2	1.59	3.8	
Kalamazoo	66	6	34.5	3.43	4.0		Mount Iron	40	-21	20.9	1.00	10.0	2.39	Halfway	74	9	42.1	3.79	T.	
Lake City	65	10	33.4	.....			Newfolden	52	-19	20.4	0.77	4.9	2.39	Harrisonville†	74	6	38.6	2.27	3.0	
Lansing	66	14	34.3	2.70	18.0		New London	59	-12	27.0	0.52	5.0	2.39	Hermann†	74	10	43.2	2.90	T.	
Lapeer	66	6	33.4	1.02	5.0		New Richland*	58	-14	26.4	.....	.....	2.39	Houstonia	74	10	43.2	2.70	5.2	
Lathrop	57	2	30.8	0.75	2.0		New Ulm†	61	-10	26.8	1.05	4.5	2.39	Irena	74	8	40.9	1.64	5.5	
Ludington	64	11	33.7	2.10	8.3		Park Rapids†	55	-21	22.6	0.53	5.3	2.39	Ironton†	76	8	40.9	2.27	3.5	
Lucerne	66	2	32.0	1.87	8.0		Pine River	56	-23	25.2	0.82	9.5	2.39	Jefferson City†	77	9	41.4	3.33	0.2	
Mackinaw City	70	15	35.1	1.48	5.0		Pipestone	.....	.....	0.15	1.4	.....	2.39	Kidder	77	3	36.8	1.78	5.9	
Madison	67	10	35.9	3.10	4.4		Pleasant Mounds	66	-10	30.0	1.24	9.5	2.39	Lamar‡	75	11	43.7	1.92	T.	
Mancelona	68	12	34.8	2.14	8.5		Pokegama Falls	56	-31	23.0	1.46	17.8	2.39	Lamonte	75	10	43.2	2.15	2.5	
Manistee	66	11	34.0	2.32	13.5		Redwing	.....	.....	2.76	28.0	.....	2.39	Lebanon	74	3	40.8	2.89	3.0	
Manistique	53	10	33.9	1.48	2.0		Reeds	.....	.....	1.90	7.0	.....	2.39	Lexington	73	11	43.7	1.78	5.9	
Middle Island* <sup>10</sup>	65	22	37.2	.....			Rolling Green	61	-7	27.5	1.20	12.0	2.39	Liberty	75	0	38.6	2.13	3.0	
Mottville	68	7	35.2	3.45	7.8		St. Charles†	60	-11	29.8	1.81	9.0	2.39	Louisiana	75	4	40.8	3.19	0.5	
Mount Clemens	63	9	35.2	3.91	3.5		St. Cloud	56	-17	27.8	1.85	15.0	2.39	McCune**1	76	4	39.5	3.34	3.0	
Mount Pleasant	68	7	36.3	2.73	10.5		St. Olaf	59	-11	24.4	0.53	3.2	2.39	Marblehill	75	8	40.5	1.79	0.2	
Muskallongee Lake* <sup>10</sup>	59	6	34.2	.....			Sandy Lake Dam	55	-29	24.8	1.17	12.0	2.39	Marshall†	79	7	38.2	2.18	2.9	
Muskegon	63	5	36.4	2.40	7.0		Shakopee	62	-8	30.0	1.11	9.0	2.39	Maryville	72	—	33.0	1.41	12.0	
Newberry	62	8	33.1	2.37	7.0		Slayton	66	-11	29.2	.....	.....	2.39	Mexico†	74	4	39.8	2.51	2.2	
North Manitou Island* <sup>10</sup>	64	16	37.4	.....			Tower†	54	-31	23.5	1.70	12.0	2.39	Miami	73	18	41.6	1.11	2.2	
North Marshall	69	7	33.7	.....			Two Harbors	69	-11	29.9	0.90	9.0	2.39	Mineralspring	73	6	42.1	2.54	T.	
Northport	68	16	38.5	2.35	14.5		Wabasha*	62	-11	29.8	1.58	10.0	2.39	Montreal	74	9	40.8	2.57	3.0	
Old Mission	68	15	38.2	.....			Willmar	59	-12	25.7	0.40	1.5	2.39	Mount Vernon	74	10	43.6	2.67	T.	
Olivet	65	13	34.3	2.81	16.5		Willow River	58	-30	27.2	2.70	15.5	2.39	Neosho	74	11	44.6	2.67	T.	
Omer	69	14	32.9	1.95	10.0		Winnebago City	.....	.....	4.00	.....	.....	2.39	Nevada	72	8	39.8	1.81	1.0	
Ottawa Point* <sup>10</sup>	56	19	37.1	.....			Worthington	61	-10	27.0	0.81	3.0	2.39	New Haven	71	9	41.9	2.08	T.	
Ovid	67	9	34.2	1.59	11.0								2.39	New Madrid	71	18	38.6	3.67	T.	
Osawasco	70	10	34.5	2.52	12.0								2.39	New Palestine	71	8	41.6	1.91	0.4	
Parkville	68	—	34.1	3.61	14.0								2.39	Oakfield	76	9	42.8	2.35	0.1	
Pentwater* <sup>10</sup>	66	18	41.0	.....									2.39	Olden†	75	9	42.1	2.37	T.	
Petoskey	68	15	35.8	2.74	9.0								2.39	Oregon	74	—	37.4	1.79	10.8	
Plymouth	68	12	34.2	3.23	1.0								2.39	Oregon b	75	0	39.7	1.76	10.8	
Pointe aux Barques* <sup>10</sup>	66	18	38.4	.....									2.39	Oto	70	1	38.9	2.65	4.0	
Port Austin	69	10	36.8	.....									2.39	Palmyra*	74	2	39.8	3.25	4.0	
Powers	61	3	31.0	.....									2.39	Phillipsburg*†	72	12	38.8	2.02	0.5	
Reed City	65	8	32.4	1.84	.....								2.39	Pickering* <sup>3</sup>	—	8	32.5	1.40	6.5	
Romeo	64	10	33.4	3.59	.....								2.39	Poplarbluff	78	10	45.9*	1.98	.....	
Saginaw	70	12	35.6	2.82	11.0								2.39	Potosi	71	6	39.0	2.65	5.0	
St. Ignace	59	12	36.0	1.95	7.0								2.39	Princeton	68	—	36.2	1.57	7.0	
St. Johns	67	10	35.6	2.51	14.5								2.39	Rhineland	76	7	41.6	2.03	T.	
St. Joseph	65	15	39.7	2.12	2.0								2.39	Richmond	70	1	38.9	2.65	4.0	
Sandbeach	65	9	36.2	3.08	2.5								2.39	Rolla	70	—	38.6	2.35	4.7	
Somerset	67	7	34.0	3.32	4.0								2.39	St. Charles	75	10	41.6	2.13	0.5	
South Haven	66	10	36.2	2.49	12.5								2.39	St. Joseph	75	—	36.5	2.86	1.0	
Stanton	68	8	34.4	2.58	15.5								2.39	Sarcocystis*	74	9	36.5	2.86	0.5	
Sturgeon Point* <sup>10</sup>	60	17	39.9	.....									2.39	Sedalia	74	7	38.4	2.95	6.8	
Thermaston	68	5	30.6	2.84	28.0								2.39	Seymour	71	8	40.6	2.73	0.5	
Thornville	65	14	36.0	2.88	12.5								2.39	Shellina	70	—	38.0	2.80	T.	
Thunder Bay Island* <sup>10</sup>	56	23	38.1	1.29	3.0								2.39	Sikeston	70	14	43.0	2.53	4.0	
Traverse City	69	12	35.7	1.29	3.0								2.39	Steffenville	68	1	38.2	2.19	0.8	
Two Heart River* <sup>10</sup>	64	12	34.0	.....									2.39	Stellada†	66	9	38.0	1.82	0.8	
Vandalia	68	12	36.2	3.94	17.5								2.39	Sublett	72	—	36.3	3.65	4.0	
Vassar	68	8	34.6	1.89	3.5								2.39	Vichy	75	8	41.4	3.81	6.8	
Vernillion Point* <sup>10</sup>	58	8	30.2	.....									2.39	Warrenton	73	5	39.1	2.97	T.	
Waespel	66	8	34.4	3.37	.....								2.39	Wheatland	73	—	36.3	1.62	1.5	
Waverly	65	4	33.6	2.77	9.6								2.39	Willow Springs	73	6	39.6	3.04	0.2	
West Harrisville	65	3	34.8	1.01	5.5								2.39	Zeitonia	73	10	42.3	1.06	T.	
Wetmore	58	—	32.0	2.12	8.0								2.39	Montana.	Adel	—	21	27.8	0.70	7.0
White Cloud	65	10	34.8	1.24	2.0								2.39	Boulder	50	—	15	27.2	0.09	0.5
Willamston	65	11	34.6	3.92	6.5								2.39	Canyon Ferry	56	—	9	29.2	.....	

TABLE II.—*Meteorological record of voluntary and other cooperating observers*—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.									
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.								
Montana—Cont'd.	0	0	0	In.	In.	Nebraska—Cont'd.	0	0	0	In.	In.	New Hampshire.	0	0	0	In.	In.								
Shelby.....	65 <sup>b</sup>	-18 <sup>b</sup>	24.5 <sup>b</sup>	0.40	2.0	North Loup.....	70	-7	32.5	0.70	....	Alstead* <sup>b</sup>	56	12	34.9	7.31	13.8								
Utica.....	51	-19	29.4	1.14	9.0	Oakdale†.....	67	-9	29.2	0.53	4.2	Berlin Mills.....	58	-1	31.8	3.72	21.0								
Wibaux.....	56	-20	23.0	0.34	1.0	Odell.....	56	-10	26.0	0.20	2.0	Bethlehem.....	54	2	32.0	4.07	28.5								
Yale.....	.....	-18	.....	0.93	7.0	O'Neill J.....	56	-10	26.0	0.27	3.0	Brookline* <sup>b</sup>	62	14	37.4	6.65	21.2								
<i>Nebraska.</i>																									
Agee* <sup>b</sup> .....	67	-10	29.7	0.53	5.1	Ord.....	.....	.....	.....	.....	.....	Claremont.....	57	8	35.4	4.84	18.0								
Albion.....	68	-7	30.4	0.61	6.0	Osceola.....	.....	.....	.....	0.55	5.5	Concord.....	58	13	37.0	5.96	18.3								
Alliance.....	.....	.....	.....	0.60	6.0	Ough†.....	.....	.....	.....	0.30	3.0	Durham.....	61	15	39.4	5.17	15.5								
Alma* <sup>b</sup> .....	75	-3	32.4	0.85	8.5	Palmer b.....	75 <sup>b</sup>	-5 <sup>b</sup>	31.5 <sup>b</sup>	0.23	3.5	Grafton.....	60	0	33.4	4.21	17.0								
Ansley†.....	76	-10	30.0	0.45	4.5	Palmyra* <sup>b</sup> .....	.....	.....	.....	0.70	7.0	Hanover.....	61	-1	33.8	3.71	19.5								
Arapaho* <sup>b</sup> .....	70	-4	34.7	0.60	6.0	Plattsburgh b.....	.....	.....	.....	1.28	12.2	Keene.....	62	3	36.2	5.05	12.0								
Arborville* <sup>b</sup> .....	70	-2	34.3	0.40	4.0	Pleasant Hill.....	69	-3	32.5	0.69	6.3	Lancaster.....	57	3	31.4	2.81	14.0								
Ashland a <sup>b</sup> .....	75	-5	34.0	0.44	5.0	Ravenna a.....	.....	.....	.....	0.61	6.1	Littleton.....	57	16	38.1	5.32	20.0								
Ashland b <sup>b</sup> .....	70	0	34.8	0.51	5.5	Ravenna b.....	.....	.....	.....	0.75	....	Nashua.....	61	16	38.1	5.32	17.5								
Ashton.....	.....	.....	.....	0.49	6.0	Redcloud b <sup>b</sup> .....	60	8	29.0	0.93	9.3	Newton.....	62	14	38.0	5.53	15.0								
Auburn* <sup>b</sup> .....	78	-9	35.0	0.85	8.0	Republican* <sup>b</sup> .....	58	-5	29.5	0.85	8.5	North Conway.....	60	11	35.6	3.72	14.5								
Aurora* <sup>b</sup> .....	64	-5	32.9	0.38	3.5	Rulo.....	.....	.....	.....	1.10	11.0	Peterboro.....	61	3	35.2	6.22	20.0								
Bartley.....	.....	.....	.....	0.84	8.0	St. Libory.....	.....	.....	.....	0.50	5.0	Plymouth.....	55	12	33.9	3.84	12.3								
Bassett.....	.....	.....	.....	0.25	2.5	St. Paul.....	72	-6	36.6	1.00	10.0	Sanbornton.....	61	8	34.8	4.30	15.0								
Beatrice†.....	75	-5	32.5	0.98	6.0	Salem* <sup>b</sup> .....	68	-9	30.8	0.92	3.2	Stratford.....	59	-2	33.4	2.29	14.0								
Beaver City†.....	79	-4	35.1	0.58	5.5	Santee Agency†.....	.....	.....	.....	0.50	5.0	Warner.....	.....	.....	6.19	17.0									
Bellevue.....	.....	.....	.....	0.83	6.8	Schuyler.....	.....	.....	.....	0.20	2.0	<i>New Jersey.</i>													
Benedict.....	.....	.....	.....	0.90	9.0	Seneca* <sup>b</sup> .....	66	-6	33.0	0.15	1.5	Asbury Park.....	66	21	43.1	8.52	17.0								
Bonkelman.....	.....	T.	T.	.....	.....	Seward* <sup>b</sup> .....	63	-1	32.9	0.50	5.0	Barnegat.....	66	24	45.5	5.94	10.0								
Blair.....	73	-3	33.7	0.48	5.8	Spragg.....	.....	.....	.....	0.20	2.0	Bayonne.....	64	24	43.4	6.75	19.0								
Bluehill.....	.....	.....	.....	0.25	2.5	Springview.....	75	-28	32.6	0.30	3.0	Belvidere.....	65	15	40.0	5.70	19.0								
Bradshaw.....	.....	.....	.....	0.25	2.5	Stanton.....	.....	.....	.....	0.71	8.0	Bergen Point.....	63	26	43.8	8.18	20.5								
Brokenbow.....	.....	.....	.....	0.22	5.0	State Farm.....	76	-8	35.4	0.36	2.0	Beverly†.....	69	21	42.9	7.73	18.3								
Burchard.....	.....	.....	.....	0.60	6.0	Stockham.....	.....	.....	.....	0.27	2.7	Billingsport* <sup>b</sup> .....	63	27	42.8	7.55	9.0								
Burwell.....	.....	.....	.....	0.30	3.0	Strang* <sup>b</sup> .....	72	-2	35.2	0.70	7.0	Boonton.....	62	19	40.1	6.53	14.5								
Callaway†.....	65	-7	28.8	0.65	5.0	Stratton.....	.....	.....	.....	0.29	....	Bridgeton.....	70	20	44.3	6.02	8.0								
Camp Clarke.....	74	-12	29.6	0.85	8.5	Superior* <sup>b</sup> .....	70	-10	34.7	0.80	8.0	Camden.....	64	24	42.7	7.26	13.8								
Central City* <sup>b</sup> .....	73	-4	31.2	0.31	3.1	Tecumseh b <sup>b</sup> .....	77	-10	37.8	0.90	9.0	Cape May C. H. ....	70	24	45.6	4.99	6.0								
Chester.....	.....	.....	.....	0.24	2.4	Tecumseh c.....	77	-7	32.5	0.97	7.0	Charlotteburg.....	61	17	39.8	5.84	10.9								
Clatonia.....	71	0	35.4	0.70	7.0	Tekamah.....	72	-7	32.5	1.07	10.0	Chestertown.....	61	16	39.2	6.29	19.0								
Cody.....	.....	T.	T.	.....	Thedford* <sup>b</sup> .....	63	-8	31.8	0.40	4.0	Clayton.....	67	22	42.4	6.27	11.5									
Columbus* <sup>b</sup> .....	72	-4	32.7	0.48	2.8	Turlington†.....	74	-2	34.3	0.56	8.3	College Farm.....	67	18	42.7	7.84	16.2								
Creighton†.....	66	-10	29.4	0.27	....	Valentine†.....	73	-15	29.8	0.54	....	Deckertown.....	63	17	40.4	5.26	13.0								
Crete.....	75	-5	34.4	0.50	5.0	Valparaiso.....	.....	.....	.....	0.45	4.5	Dover.....	62	17	39.6	6.29	17.0								
Culbertson.....	.....	.....	.....	0.37	3.0	Wakefield.....	68	-9	31.3	0.74	6.0	Egg Harbor City.....	66	22	42.0	6.65	11.0								
Curtis a.....	74	-2	35.4	0.63	....	Waupaca.....	.....	.....	.....	0.25	2.5	Elizabeth.....	67	23	43.0	7.46	21.0								
David City.....	72	-3	32.0	0.80	9.0	Wauneta.....	.....	.....	.....	0.25	2.5	Englewood.....	62	12	41.1	6.95	22.0								
Dawson.....	77	-8	30.0	1.05	7.8	Weeping Water* <sup>b</sup> .....	68	-10	30.4	1.23	11.0	Flemington.....	67	17	41.4	7.05	13.3								
Eden.....	.....	.....	.....	0.60	6.0	Westpoint†.....	68	-10	33.6	0.74	4.0	Freehold.....	65	20	42.2	7.75	....								
Edgar* <sup>b</sup> .....	68	-2	33.0	0.43	3.2	Whitman.....	.....	.....	.....	0.20	2.0	Friesburg.....	67	23	43.2	5.92	9.0								
Elba.....	.....	.....	.....	0.30	3.0	Wilber* <sup>b</sup> .....	68	2	36.2	0.74	....	Hammonton.....	60	20	40.2	6.88	12.5								
Ericson* <sup>b</sup> .....	70	-4	30.3	0.53	5.3	Willard.....	.....	.....	.....	0.43	4.5	Hightstown.....	66	24	43.2	7.55	15.0								
Ewing†.....	.....	.....	.....	0.70	7.0	Wilsonsburg* <sup>b</sup> .....	70	-2	34.6	0.35	3.5	Imlayshtown.....	69	22	43.6	6.91	11.9								
Fairbury†.....	78	-8	33.3	0.92	7.5	Wymore* <sup>b</sup> .....	72	-3	34.2	1.40	7.0	Lambertville.....	63	23	42.2	7.29	....								
Fairfield.....	.....	.....	.....	0.85	6.0	York* <sup>b</sup> .....	72	-6	32.7	0.30	3.0	Lebanon.....	.....	.....	6.94	15.5	....								
Fairmont†.....	75	-7	31.8	0.55	5.5	<i>Nevada.</i>																			
Fort Robinson.....	72	-8	29.6	0.46	3.2	Austin.....	65	7	35.0	1.88	14.0	<i>New Mexico.</i>													
Fremont†.....	70	-10	31.2	0.90	9.0	Battle Mountain* <sup>b</sup> .....	54	5	30.6	0.32	3.2	Albert.....	72	13	40.8	0.60	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Geneva†.....	75	-6	32.9	0.82	7.5	Beowawe* <sup>b</sup> .....	71	0	33.5	0.60	0.5	Albuquerque†.....	71	15	43.0	0.50	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Genos.....	70	-5	32.2	0.55	6.4	Blaine.....	67	-3	31.8	2.17	5.5	Alma.....	78	11	43.0	1.05	3.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Gering.....	.....	.....	.....	1.10	8.5	Bunkerville.....	.....	.....	.....	1.30	7.0	Aztec†.....	71	7	37.0	0.42	4.2	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Gothenburg.....	66	-13	30.9	0.90	9.0	Candelaria.....	77	13	43.2	0.07	0.7	Bernalillo†.....	74	18	43.4	0.80	1.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Grand Island a.....	.....	.....	.....	0.40	4.0	Carlin* <sup>b</sup> .....	62	0	26.3	1.05	3.0	Bluewater.....	69	0	34.3	0.80	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Grand Island b.....	70	-4	33.2	0.75	7.4	Carlton.....	77	13	42.2	0.41	1.8	Buckmans.....	58	-5	25.8	1.19	16.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Greeley.....	.....	.....	.....	0.90	3.0	Empire Ranch.....	67	15	36.2	0.88	7.0	Clayton* <sup>b</sup> .....	77	10	40.6	0.55	5.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Haigler.....	.....	T.	T.	0.50	5.0	Fenelon* <sup>b</sup> .....	59	-2	27.2	2.00	9.5	Deming* <sup>b</sup> .....	82	92	50.4	0.10	0.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Hickelman.....	.....	.....	.....	0.50	1.0	Golconda* <sup>b</sup> .....	58	12	35.4	0.36	1.5	East Lasvegas†.....	67	8	37.0	0.57	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Holdrege b.....	.....	.....	.....	0.10	1.0	Halleck* <sup>b</sup> .....	58	-6	26.5	0.70	2.0	Eddy.....	81	16	47.6	0.30	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Hooper* <sup>b</sup> .....	67	-8	29.8	0.68	6.2	Hawthorne a <sup>b</sup> .....	70	24	41.6	0.09	T.	Engle†.....	70	14	39.1	1.50	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Imperial†.....	75	-5	33.6	0.86	6.2	Hawthorne b <sup>b</sup> .....	76	15	41.2	0.09	T.	Espanola.....	71	12	38.2	0.55	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Johnstown.....	.....	.....	.....	0.15	1.5	Monitor Mill.....	66	0	31.9	0.35	3.1	Folsom.....	73	4	35.2	0.54	5.2	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Kearney.....	.....	.....	.....	0.45	4.5	Palisade* <sup>b</sup> .....	67	1	31.4	1.44	4.0	Fort Bayard.....	78	16	43.6	0.30	1.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Kimball†.....	72	-12	30.4	0.70	7.0	Palmetto.....	71	3	36.1	0.10	1.0	Fort Wingate.....	81	8	41.2	2.60	....	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Kirkwood* <sup>b</sup> .....	68</																								

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>New Mexico—Cont'd.</i>	°	°	°	In 8.	In 8.	<i>New York—Cont'd.</i>	°	°	°	In 8.	In 8.	<i>North Dakota—Cont'd.</i>	°	°	°	In 8.	In 8.
Los Lunas.....	65	10	38.4	1.00	8.0	Schenectady.....	60	13	36.6	.....	.....	Napoleon†.....	60	-20	23.1	0.48	4.5
Lower Penasco.....	76	12	44.0	0.80	3.0	Setauket†.....	62	22	43.0	6.28	16.0	New England City.....	.....	.....	.....	0.25	2.5
Mesilla Park.....	81	9	46.0	0.43	.....	Sherwood.....	.....	.....	.....	3.48	.....	Power†.....	64	-13	24.3	0.40	4.0
Monero.....	65	-12	29.7	0.55	6.0	Skaneateles.....	.....	.....	.....	3.95	.....	Sheyenne.....	58	-17	22.4	0.08	0.8
Puerto de Luna.....	74	16	44.0	0.75	5.5	South Canisteo.....	65	9	36.4	3.33	4.0	Teele.....	56	-17	22.5	T.	T.
Raton.....	72	5	38.0	0.40	4.0	Southeast Reservoir.....	57	5	34.8	3.88	.....	Towner†.....	55	-19	23.0	.....	.....
Rincon†.....	82	14	48.0	T.	.....	Straits Corners.....	60 <sup>d</sup>	14	34.0 <sup>d</sup>	3.07	3.1	University.....	59	-8	25.4	T.	T.
Roswell†.....	85	10	44.8	0.50	1.5	Wappingers Falls.....	65	13	40.0	5.74	19.0	Valley City†.....	60	-16	24.1	0.68	6.0
San Marcial.....	78	14	45.1	0.55	4.0	Watertown.....	67	5	36.3	3.02	6.5	Wahpeton†.....	66	-13	26.8	0.66	6.0
Shattucks Ranch.....	77	16	44.8	0.78	1.0	Waverly†.....	64	18	38.2	2.55	3.3	Willow City.....	54	-24	23.0	0.30	3.0
Socorro.....	74	14	41.8	0.60	4.0	Wedgewood.....	64	13	36.8	2.73	2.5	Woodbridge†.....	58	-22	19.3	0.22	2.2
White Oaks†.....	68	13	41.8	0.25	1.5	West Berne.....	70	13	38.2	5.19	8.0	<i>Ohio.</i>	.....	.....	.....	.....	.....
Winsors Ranch.....	63	-2	30.2	1.55	.....	Westfield.....	68	16	40.0	2.85	4.0	Akron.....	66	13	38.8	3.89	4.2
<i>New York.</i>	.....	.....	.....	.....	Westpoint†.....	64	18	40.1	6.29	.....	Annapolis.....	64	5	37.0	3.08	2.0	
Adams.....	63	18	38.7	3.14	.....	Willetspoint.....	63	10	42.2	6.18	20.0	Ashland.....	68	9	37.0	3.76	8.0
Akron.....	.....	.....	.....	3.17	.....	<i>North Carolina.</i>	.....	.....	.....	.....	.....	Ashatabula.....	65	20	40.0	4.15	3.0
Alden.....	66	3	35.9	3.70	3.5	Abshers.....	72	16	43.6	3.19	2.0	Atwater.....	.....	.....	.....	2.87	3.5
Alfred.....	63	14	38.0	2.99	1.2	Asheville.....	.....	.....	.....	1.87	T.	Basil.....	.....	.....	.....	2.07	T.
Angelica†.....	63	12	37.2	3.00	2.0	Beaufort†.....	72	27	53.2	4.14	.....	Bement.....	.....	.....	.....	4.05	2.8
Appleton.....	68	20	38.8	2.74	2.4	Biltmore†.....	70	14	44.3	1.91	T.	Benton Ridge.....	66	6	37.0	2.83	3.6
Arcade.....	62	11	35.9	3.79	4.7	Bryson City†.....	71	26	49.6	3.84	.....	Bethany.....	69	11	40.5	3.46	1.0
Atlanta.....	.....	.....	.....	3.35	.....	Edenton.....	71	22	47.0	2.98	T.	Bigprairie.....	66	12	39.2	4.25	3.5
Auburn.....	68	12	40.0	3.65	3.0	Experimental Farm.....	73	24	48.0	2.65	0.5	Binola.....	.....	.....	.....	2.90	4.5
Avon.....	65	9	36.9	2.72	.....	Fairbluff†.....	77	22	50.4	4.95	.....	Bloomingburg.....	69	12	40.0	2.74	2.0
Baldwinsville.....	65	15	38.6	3.31	4.0	Fayetteville†.....	68	14	42.2	3.98	.....	Bowling Green.....	69	3	36.6	2.70	3.5
Bedford.....	68	13	40.1	6.16	25.2	Flatrock.....	70	23	45.0	2.45	.....	Bucyrus f.....	68	8	36.3	.....	.....
Big Sandy* <sup>10</sup> .....	62	11	37.7	.....	.....	Henderson†.....	71	23	46.3	3.40	0.3	Cambridge.....	69	9	37.5	2.18	3.0
Bolivar.....	65	10	36.6	3.40	4.0	Hendersonville.....	70	14	43.8	3.08	.....	Camp Dennison.....	69	13	40.8	2.93	1.0
Buckville.....	55	8	34.6	3.32	7.0	Horse Cove.....	64	11	43.6	6.32	1.1	Canal Dover.....	66	12	38.5	3.00	2.5
Boys Corner.....	.....	.....	.....	6.81	23.8	Lenoir*†.....	67	22	44.6	3.32	0.1	Canton.....	73	13	39.4	3.90	3.8
Brentwood.....	65	13	40.2	8.90	24.5	Liuville†.....	58	9	37.9	2.54	2.0	Carrollton.....	70	7	39.4	2.93	4.0
Canton.....	65	3	34.0	2.01	4.5	Littleton†.....	72	21	45.4	3.24	T.	Celina.....	68	3	38.2	2.88	4.0
Carmel.....	64	17	40.0	6.51	18.0	Louisburg†.....	73	21	47.3	2.96	0.5	Circleville.....	72	14	40.6	2.75	1.0
Carvers Falls.....	63	5	34.9	3.39	9.0	Maria.....	74	25	49.5	4.97	.....	Clarksville.....	70	11	41.3	3.15	1.7
Cedarhill.....	75	7	39.0	4.01	7.5	Marion.....	71	20	44.8	3.27	2.0	Cleveland a.....	67	18	40.0	3.78	2.2
Charlotte* <sup>10</sup> .....	62	15	35.4	.....	Mount Pleasant.....	73	21	47.3	2.96	0.5	Cleveland b.....	68	18	39.3	2.41	2.2	
Chenango Forks.....	.....	.....	.....	3.70	.....	Maryton.....	71	20	44.8	3.27	2.0	Clifton.....	69	8	38.4	4.82	2.5
Cherry Creek.....	.....	.....	.....	5.27	.....	Marshall.....	69	12	42.6	1.65	T.	Coalton.....	68	10	39.8	3.09	1.0
Cookstown†.....	57	12	35.5	4.64	7.0	Mocksville.....	75	22	47.4	2.86	T.	Colebrook.....	67	7	38.4	3.69	4.0
Cortland.....	61	15	38.2	3.10	0.2	Moncure†.....	72	23	47.8	2.53	T.	Dayton a.....	71	10	40.9	4.30	2.2
Dekab Junction.....	.....	.....	.....	2.08	.....	Monroe†.....	73	18	47.5	3.22	T.	Dayton b.....	69	8	36.0	4.48	1.8
Eagle Mills.....	.....	.....	.....	3.30	.....	Mountainty.....	68	19	43.0	1.94	2.1	Defiance.....	69	8	36.0	3.30	4.1
Elmira.....	64	18	39.6	2.24	2.5	Murphy†.....	71	22	41.0	3.13	.....	Delaware.....	69	10	38.0	4.30	2.5
Fayetteville.....	.....	.....	.....	3.25	.....	Newbern.....	80	25	53.0	3.56	.....	Demos.....	65	13	38.2	3.01	3.0
Fleming.....	64	15	39.2	2.21	4.0	Oakridge†.....	72	21	45.9	2.53	.....	Elyria.....	69	13	38.9	3.22	1.5
Fort Niagara.....	68	18	39.6	2.33	.....	Panetgo.....	61	22	41.0	3.13	.....	Findlay.....	70	5	36.8	3.13	4.5
Franklinville.....	65	8	36.5	4.02	2.6	Patterson* <sup>1</sup> .....	61	22	41.0	3.13	.....	Frankfort.....	67	13	40.0	2.25	0.5
Fulton.....	.....	.....	.....	3.06	.....	Pittsboro†.....	81	19	47.8	2.54	1.0	Garrettsville.....	69	3	37.8	4.60	5.5
Glens Falls.....	61	10	37.2	3.59	6.0	Rockingham†.....	74	21	48.8	4.21	.....	Granville.....	65	12	37.6	3.00	2.5
Gloversville.....	60	9	34.7	4.64	7.6	Salem†.....	70	19	45.4	2.63	.....	Gratiot.....	67	12	40.0	2.55	2.0
Greenwich.....	60	4	35.6	3.53	6.0	Salisbury†.....	73	23	47.8	3.26	.....	Greenhill.....	68	4	37.3	3.98	4.0
Haskinsville.....	.....	.....	.....	2.97	.....	Saxon†.....	70	16	45.0	2.31	.....	Greenville.....	64	10	38.4	3.05	2.5
Hemlock Lake.....	62	17	39.2	2.56	3.0	Selma.....	74	22	48.4	3.36	.....	Hackney.....	.....	.....	.....	2.56	4.0
Honeymead Brook.....	60	8	36.8	4.71	13.5	Settle.....	68	17	43.2	2.10	.....	Hanging Rock.....	.....	.....	.....	2.79	.....
Humphrey†.....	66	12	37.0	3.15	8.3	Sloan†.....	77	25	53.0	4.11	T.	Hedges.....	69	5	35.8	2.87	9.2
Ithaca.....	61	16	39.0	3.15	4.1	Soapstone Mount†.....	64	16	42.6	3.12	.....	Hillhouse.....	70	14	37.6	4.32	7.0
Jamestown.....	64 <sup>d</sup>	11 <sup>d</sup>	38.6 <sup>d</sup>	4.70	8.6	Southern Pines a†.....	75	24	50.2	4.15	.....	Hillsboro.....	75	9	41.4	2.94	7.5
Keene Valley.....	59	1	33.2	2.53	13.5	Southern Pines b†.....	.....	.....	.....	.....	.....	Hiram.....	64	15	37.6	4.66	7.5
Kings Station.....	.....	.....	.....	4.60	.....	Southport†.....	79	24	55.6	5.32	.....	Hudson.....	67	9	37.8	4.78	7.2
Lake Placid.....	57	4	32.2	2.85	.....	Springhope* <sup>1</sup> .....	74	25	46.6	2.10	.....	Jacksonboro.....	70	12	39.9	3.95	3.0
Liberty.....	58	12	35.1	3.64	10.0	Tarboro.....	79	21	49.0	3.40	.....	Kenton.....	70	10	38.4	3.40	3.8
Little Falls.....	62	12	37.1	3.10	1.0	Washwoods.....	.....	.....	.....	.....	.....	Killbuck <sup>d</sup> .....	68	12	37.5	3.23	3.0
Lockport.....	63	17	37.0	1.21	1.0	Waynesville†.....	67	14	42.2	2.42	T.	Lancaster.....	68	5	37.8	2.52	4.0
Lowville.....	60	6	34.0	3.41	4.0	Weldon†.....	74	23	45.5	3.18	T.	Leipsic.....	66	5	37.8	2.52	4.0
Lyndonville.....	.....	.....	.....	2.63	.....	.....	.....	.....	.....	.....	Levering.....	68	11	36.7	5.52	2.0	
Lyons.....	62	19	39.8	3.00	4.5	.....	.....	.....	.....	.....	Logan.....	74	10	40.9	2.58	1.0	
Madison Barracks.....	64	8	38.8	.....	.....	.....	.....	.....	.....	.....	Lordstown.....	69	15	38.4	3.38	3.5	
Middletown.....	57	17	38.3	4.99	15.0	.....	.....	.....	.....	.....	McArthur.....	70	9	38.8	2.91	2.0	
Mount Morris.....	.....	.....	.....	1.74	T.	.....	.....	.....	.....	.....	McConnellsburg.....	72	12	40.8	2.88	2.5	
Newark Valley.....	.....	.....	.....	3.11	T.	.....	.....	.....	.....	.....	Mansfield.....	.....	.....	.....	6.00	4.5	
New Lisbon.....	59	6	34.6	3.64	6.0	.....	.....	.....	.....	.....	Marietta b.....	67	17	42.4	3.16	1.1	
Niagara Falls.....	.....	.....	.....	3.00	.....												

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			Stations.	Temperature. (Fahrenheit.)			Precipita- tion.			Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.			Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.			Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
<i>Ohio—Cont'd.</i>							<i>Oregon—Cont'd.</i>							<i>Pennsylvania—Cont'd.</i>						
Portsmouth a.....	°	°	°	In.s.	In.s.		Merlin *1.....	°	°	°	In.s.	In.s.		Reedsville.....	°	°	°	In.s.	In.s.	
Portsmouth b.....	72	15	42.4	2.54	1.5		Monmouth a *1.....	62	20	39.8	3.46			Newport.....	62	20	40.4	2.11	.....	
Richwood.....	71	10	39.8	3.63	3.0		Monmouth b.....	65	29	45.1	10.10			Pendleton.....	62	18	40.9	2.18	4.0	
Ridgeville Corners.....	68	9	36.0	2.96	5.0		Monroe.....	59	26	44.4	.....			Place.....	62	20	40.8	2.53	3.5	
Ripley.....	67	11	40.6	3.42	2.6		Mount Angel t.....	60	26	44.1	11.13			Prineville.....	73	9	42.3	5.48	3.5	
Rittman.....	65	6	35.8	4.49	4.0		Nehalem.....	58	28	43.8	9.18			Riddles *1.....	62	32	43.6	6.11	5.1	
Rockyridge.....	70	8	37.8	3.25	2.0		Newberg.....	59 <sup>b</sup>	27 <sup>b</sup>	43.8*	6.63			Sagerstown.....	68	2	38.8	4.78	5.1	
Rosewood.....	68	10	37.6	2.83	1.5		Portsmouth.....	62	20	39.8	11.29			St. Marys.....	13	.....	.....	3.90	.....	
Seaman.....	68	11	40.7	3.13	1.0		Newport.....	62	34	47.5	2.08			Salem Corners.....	61	12	36.7	5.07	11.0	
Shenandoah.....	67	4	35.8	3.38	4.1		Pendleton.....	62	20	40.8	2.0			Scranton.....	61	14	38.8	3.34	5.0	
Sidney b.....	68	10	37.1	3.76	3.0		Place.....	62	20	40.8	0.5			Selbytown.....	62	20	40.9	7.03	.....	
Sinking Spring.....	66	14	40.0	3.16	1.5		Prineville.....	73	9	42.3	2.60			Shawmont.....	62	10	36.1	5.93	10.6	
Somerset t.....	67	.....	.....	2.84	1.8		Riddles *1.....	62	32	43.6	6.82			Shinglehouse.....	62	10	40.0	3.00	0.8	
Springboro.....	.....	.....	.....	3.80	.....		Salem b.....	60	28	44.6	7.75			Sunamahoning.....	67	10	36.6	3.83	.....	
Strongsville.....	.....	.....	.....	3.36	2.5		Sheridan *1.....	56	30	44.4	7.75			Smethport.....	67	10	36.6	4.00	.....	
Sylvania.....	68	8	34.3	3.63	6.0		Silver Lake.....	61	0	33.6	2.03			Smiths Corners.....	61	.....	.....	6.17	.....	
Thurman.....	73	11	41.2	2.20	T.		Silverton *1.....	66	30	45.2	7.15			Somerset.....	66	10	36.1	2.91	10.0	
Tiffin.....	65	11	38.1	2.97	4.5		Siskiyou *1.....	68	36	44.7	1.40			South Eaton.....	61	15	39.2	3.27	5.0	
Upper Sandusky.....	76	8	39.5	3.50	3.0		Sparta.....	52	14	31.0	6.01			State College.....	62	10	38.2	2.28	3.8	
Urbana.....	63	10	37.8	3.18	3.5		Springfield *1.....	63	30	44.0	6.26			Swarthmore.....	62	25	41.5	4.60	11.0	
Vanceburg.....	70	12	40.6	3.40	T.		Stafford.....	56	28	41.2	7.75			Towanda.....	59	18	37.9	5.21	5.5	
Vanwert.....	69	6	36.6	2.84	4.0		The Dalles t.....	58	27	42.0	2.13			Trout Run.....	.....	.....	.....	2.77	3.5	
Vermillion.....	68	8	38.2	2.90	6.0		Tillamook Rock.....	73	32	50.4	11.15			Uniontown.....	70	16	41.6	3.99	8.0	
Vicker.....	68	8	37.4	2.72	2.3		Vale.....	65	7	32.0	1.11			Warren t.....	60	10	36.1	4.30	5.7	
Walnut.....	.....	.....	.....	2.55	1.1		Vane.....	25	.....	.....	.....			Wellsboro t.....	64	18	39.0	2.83	2.0	
Warren.....	68	13	38.4	3.58	6.8		West Fork *1.....	62	30	45.2	5.36			West Chester.....	63	23	42.3	6.82	14.0	
Warsaw.....	69	9	38.4	3.40	3.9		Weston.....	60	20	37.6	5.24			West Newton.....	63	21	41.4	6.06	8.0	
Wauseon.....	69	8	36.5	3.39	5.6		Williams.....	65 <sup>b</sup>	20	43.4	4.40			Westtown.....	64	14	37.8	4.18	7.0	
Waverly.....	73	13	41.0	3.50	2.2		<i>Pennsylvania.</i>	.....	.....	.....	.....			Wilkesbarre t.....	61	18	38.1	3.90	9.5	
Waynesville.....	64	12	37.4	3.31	1.8		Altoona.....	65	16	38.9	2.14			Williamsport.....	60	21	40.8	1.97	1.5	
Wellington.....	67	8	38.2	3.09	4.0		Aqueduct.....	68	27	43.0	2.75			York t.....	65	20	41.0	4.75	9.3	
Westerville.....	66	12	39.6	3.45	2.5		Athens.....	64	18	38.6	2.39			<i>Rhode Island.</i>	.....	.....	.....	.....	.....	
Wooster b.....	66	11	38.4	4.14	4.5		Beaver Dam.....	.....	.....	.....	.....			Bristol.....	59	24	42.4	7.31	21.0	
Youngstown.....	67	16	38.0	3.06	0.5		Bethlehem.....	.....	.....	.....	.....			Kingston.....	60	18	40.2	7.44	20.0	
Zanesville.....	.....	.....	.....	2.24	1.9		Brookville t.....	.....	.....	.....	.....			Lonsdale.....	.....	.....	.....	6.58	19.0	
<i>Oklahoma.</i>							Cameron.....	.....	.....	.....	.....			Pawtucket.....	63	21	41.2	7.04	18.0	
Anadarko.....	82°	13°	47.9°	1.25	.....		Carlisle.....	62	24	40.8	4.39			Providence a.....	60	24	41.8	7.29	20.0	
Arapaho t.....	83	12	43.9	0.98	0.5		Cassandra.....	62	16	38.2	2.51			Providence c.....	60	20	40.9	6.91	17.0	
Burnett t.....	84	14	47.5	0.82	T.		Cedarrun.....	.....	.....	.....	.....			<i>South Carolina.</i>	.....	.....	.....	.....	.....	
Clifton t.....	83	12	45.5	0.90	.....		Centerhall t.....	59	20	39.2	3.60			Allendale.....	79	23	53.8	5.80	.....	
Fort Sill.....	80	6	45.0	1.21	.....		Chambersburg t.....	65	20	39.4	3.15			Anderson t.....	.....	.....	.....	3.27	.....	
Guthrie.....	80	15	47.6	0.70	T.		Coatesville.....	67	20	42.3	6.59			Batesburg t.....	75	23	50.2	5.20	.....	
Hennessey.....	.....	.....	.....	0.95	T.		Confluence t.....	67	20	42.3	11.4			Blackville t.....	81	26	52.6	5.05	.....	
Hopeton.....	84	9	42.0	0.61	2.0		Coopersburg.....	67	19	43.8	7.22			Camden t.....	72	19	47.3	3.52	.....	
Jefferson.....	80	6	46.0	0.65	1.0		Davis Island Dam t.....	63	16	40.2	4.76			Central.....	76	23	49.6	8.92	.....	
Kingfisher.....	85	13	46.6	0.90	T.		Derry Station.....	69	6	40.3	3.21			Cheraw a t.....	76	23	49.6	4.61	.....	
Mangum t.....	87	16	46.1	0.55	T.		Doylestown.....	.....	.....	.....	.....			Clemson College a.....	72	14	44.3	3.01	.....	
Newkirk.....	80	10	43.9	0.96	0.2		Driftwood.....	.....	.....	.....	.....			Conway t.....	.....	.....	.....	4.43	.....	
Norman.....	82	5	44.0	0.50	.....		Duncannon.....	.....	.....	.....	.....			Darlington.....	.....	.....	.....	5.62	.....	
Pawhuska.....	78	13	43.4	0.82	0.4		Dushore.....	57	11	36.1	3.53			Edisto t.....	.....	.....	.....	5.71	.....	
Perry.....	80	10	44.7	0.99	1.2		Dyberry.....	63	10	36.1	5.10			Evingham t.....	.....	.....	.....	5.13	.....	
Prudence *1.....	77	8	42.0	0.69	.....		East Bloomsburg.....	.....	.....	.....	.....			Gaffney t.....	.....	.....	.....	2.90	.....	
Sac and Fox Agency.....	80	12	43.0	0.50	T.		East Mauch Chunk.....	63	16	40.2	4.76			Georgetown.....	77	28	55.8	5.30	.....	
Stillwater t.....	83	14	46.0	0.68	0.3		Hamburg.....	63	18	42.0	4.69			Gillisonville.....	80	24	54.7	6.41	.....	
Waukomis.....	82	16	46.1	0.95	T.		Hawley.....	63	14	37.0	4.95			Greenville t.....	73	23	46.1	3.35	.....	
Windview.....	.....	.....	.....	0.88	0.5		Hews Island Dam.....	.....	.....	.....	.....			Greenwood .....	21	.....	.....	3.85	.....	
Woodward.....	84	10	41.6	0.44	2.5		Holidaysburg.....	67	16	40.1	1.44			Holland.....	74	18	46.8	3.52	0.5	
<i>Oregon.</i>	64	28	45.0	7.88	T.		Huntingdon a.....	65	21	42.0	2.23			Kingtree a t.....	76	26	53.2	5.93	.....	
Albany a.....	64	28	45.0	7.56	.....		Huntingdon b.....	.....	.....	.....	.....			Kingtree b.....	76	26	53.2	5.87	.....	
Arlington.....	62	25	41.5	1.12	T.		Irvine.....	.....	.....	.....	.....			Little Mountain.....	78	18	49.0	4.91	.....	
Ashland b.....	68	23	42.4	8.86	0.3		Johnstown t.....	73	17	40.8	3.15			Longshore t.....	78	20	48.6	4.51	.....	
Aurora *1.....	58	27	42.9	5.41	.....		Karthaus.....	.....	.....	.....	.....			Mount Carmel t.....	.....	.....	.....	3.73	.....	
Aurora (near).....	58	27	43.2	6.62	.....		Keating.....	.....	.....	.....	.....			Pinopolis *1.....	75	29	53.8	5.18	.....	
Bandon.....	60	30	48.6	12.25	.....		Kennett Square.....	65	22	42.6	6.54			Society Hill t.....	74	26	50.2	5.21	.....	
Bay City t.....	72	30	45.8	16.42	.....		Lansdale.....	.....	.....	.....	.....			Spartanburg.....	70	22	45.8	2.59	.....	
Beulah.....	64	7	32.7	1.89	6.5		Lawrenceville.....	67	.....	.....	.....			Statesburg t.....	79	25	52.8	5.44	.....	
Brownsville *1.....	62	27	43.1																	

TABLE II.—*Meteorological record of voluntary and other cooperating observers*—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>South Dakota—Cont'd.</i>						<i>Texas—Cont'd.</i>						<i>Utah—Cont'd.</i>					
Flandreau	63	-11	28.1	0.52	3.5	Arthur City†	85	30	53.6	1.49		Ogden a*1	63	18	37.8	1.12	4.0
Forestburg†	67	-20	24.5	0.13	1.3	Austin a	85	26	52.9	0.71		Pahréah	74	17	42.5	T.	T.
Forest City	70	-15	25.2	0.10	1.0	Austin b*5	85	20	49.9	0.30		Parowan†	72	8	34.9	0.72	7.2
Fort Meade†	75	-10	31.4	0.33	3.2	Ballinger†	81	20	49.9	0.30		Pinto	63	2	32.6	0.11	4.0
Gary	.....	-9	.....	0.40	2.5	Beaumont	.....	.....	.....	4.50		Promontory†	49	19	34.4	.....	.....
Goudyville	69	-16	23.8	0.01	0.1	Beeville†	94	31	58.6	2.20		Provo	77	15	39.2	1.08	.....
Harney	64 <sup>a</sup>	-12 <sup>a</sup>	29.2 <sup>a</sup>	0.35	2.0	Boerne*1	84	27	53.0	2.16		Richfield†	76	4	38.8	.....	.....
Hotch City†	74	.....	.....	0.19	4.0	Brazoria†	87	33	57.6	4.84		St. George†	81	13	42.8	T.	T.
Hot Springs	75	-16	32.6	0.20	2.0	Brenham†	86	28	55.6	3.47		Scipio	72	1	34.4	1.36	6.0
Howard†	60	-20	26.5	0.15	1.5	Brighton	87	38	61.9	3.50		Snowville	64	3	34.2	1.16	6.0
Interior	72	-13	27.6	0.20	2.0	Brownwood	80	22	49.0	0.45		Soldier Summit	.....	.....	.....	1.15	11.5
Ipswich	60	-12	23.1	0.05	0.5	Burnet <sup>a</sup>	84	26	50.8	3.82		Terrace <sup>a</sup>	57	1	32.5	1.46	9.5
Kimball†	68	-12	28.6	0.33	3.2	Coleman	82	22	51.2	0.49		Tooele†	72	15	36.5	1.79	.....
Leslie	80	-20	27.6	0.40	4.0	College Station <sup>a</sup>	77	28*	53.2	2.18		Tropic	65	8	34.8	T.	.....
Menno†	66	-10	29.2	0.33	3.2	Colorado	.....	.....	.....	.....		Vernal	64	7	31.4	0.39	3.6
Mitchell†	67	-13	28.5	0.26	3.5	Columbia†	88	28	55.2	4.47		Woodruff	61	8	27.0	0.97	15.0
Montrose†	63	-10	26.8	0.41	2.0	Conroe	87	28	54.7	5.18		Vermont	.....	.....	.....	.....	.....
Nowlin	72	-19	25.9	0.30	3.0	Corsicana b†	82	24	55.2	2.21		Bennington	63	5	36.6	4.39	9.0
Olrichs	67	-18	28.7	0.43	4.3	Cuero†	82	32	54.6	2.48		Brattleboro	62	9	39.2	6.20	16.0
Parker	66	-10	29.2	0.20	2.0	Dallas†	85	24	50.0	2.52		Burlington	62	12	38.4	1.90	9.5
Plankinton†	65	-13	26.2	0.20	1.0	Danevang†	88	27	57.6	2.32		Chester	52	2	31.2	2.82	20.0
Redfield	70	-13	26.0	0.28	3.0	Dublin†	21	.....	.....	.....		Cornwall	58	5	34.4	1.30	9.0
Rochford	56	-15	26.2	1.03	9.0	Duval	92	27	57.4	1.34		Enosburg Falls	62	3	33.8	1.90	9.0
Shiloh	60	-14	27.2	T.	Emory	20	.....	.....	.....		Hartland	59	1	33.5	4.67	19.5	
Sioux Falls†	65	-12	26.6	0.68	4.5	Estelle†	88	21	52.1	2.18		Jacksonville	51	10	32.5	5.72	19.0
Spearfish†	60	-7	29.4	0.18	3.5	Forestburg	90	20	49.5	1.00	3.5	Norwich	60	6	32.8	3.87	16.0
Tyndall†	66	-10	29.2	0.30	3.0	Fort McIntosh	98	30	61.3	0.92		St. Johnsbury	56	2	32.4	2.68	12.0
Watertown	67	-15	25.2	0.15	1.5	Fort Ringgold	98	34	65.7	1.01		Vernon <sup>a</sup>	59	9	37.0	2.94	15.0
Waubay	58	-15	23.8	0.35	3.5	Fort Stockton	80 <sup>a</sup>	25	51.7 <sup>a</sup>	2.24	2.2	Wells	58	9	34.6	3.56	10.5
Wentworth†	63	-10	27.2	0.26	2.6	Fredericksburg <sup>a</sup> †	86 <sup>a</sup>	20	51.0	3.73		Woodstock	54	2	31.8	3.94	20.0
Wessington Springs	61	-13	26.6	T.	Fruitland	89	20	51.0	3.73		Virginia	.....	.....	.....	.....	.....	
Whiteswan	67	-8	31.2	0.32	3.2	Georgetown	85 <sup>a</sup>	26 <sup>a</sup>	52.2 <sup>a</sup>	1.78		Alexandria	68	24	44.5	2.87	1.8
Wolsey	.....	.....	.....	0.16	1.5	Golindo	.....	.....	.....	.....		Ashland†	72	20	45.8	1.93	T.
<i>Tennessee.</i>	.....	.....	.....	.....	Grace <sup>a</sup>	81 <sup>a</sup>	21 <sup>a</sup>	51.6 <sup>a</sup>	2.96		Bedford City	70	21	44.3	2.05	2.5	
Andersonville	69	14	42.3	2.78	T.	Hale Center†	86	15	47.8	0.75		Bigstone Gap†	72	13	42.6	3.68	0.5
Ashwood	72	17	46.4	3.52		Hallettsville†	88	32	56.8	1.92		Blacksburg	76	11	41.0	1.89	2.0
Benton (near)†	72	12	43.6	2.16		Henrietta	82	22	48.6	0.31		Buckingham†	72	16	42.8	2.17	0.1
Blue City†	.....	.....	.....	2.32		Hewitt	.....	.....	.....	.....		Burkes Garden	62	6	38.8	3.05	2.5
Bolivar†	74	16	47.1	2.94	T.	Honeygrove	.....	.....	.....	.....		Callaville†	71	20	45.7	3.35	.....
Bristol†	68	14	41.6	2.32	T.	Houston†	87	32	56.1	5.28		Charlottesville	68	24	45.2	2.07	.....
Byrdstown	71	13	45.1	3.50	0.3	Hulen <sup>a</sup>	85	29	57.4	1.87		Christiansburg	.....	.....	.....	2.26	3.0
Carthage†	77	15	47.0	3.38		Huntsville†	84	24	52.4	4.14		Clarksville	.....	.....	.....	1.80	T.
Charleston	.....	.....	.....	2.91		Jacksonville	85	20	53.1	4.32		Clifton Forge	62	20	39.8	.....	.....
Clarksville	71	15	40.1	4.48	T.	Jasper	85	30	56.6	5.87		Colemans Falls	72	21	45.8	2.91	3.0
Clinton	.....	.....	.....	3.19		Junction	.....	.....	.....	.....		Date Enterprise†	67	10	40.1	1.82	1.0
Decatur†	72	15	45.2	3.15		Kent	.....	.....	.....	.....		Dowell	73	18	45.4	3.47	T.
Dover	77	14	45.9	2.88		Kerrville	90	21	50.6	1.86		Dwale	.....	.....	.....	2.68	0.2
Elizabethhton†	73	15	43.5	2.22	T.	Lampasas†	86	19	47.8	2.43		Fredericksburg†	71	26	45.0	2.07	1.0
Elk Valley	12	.....	.....	2.86		Llano <sup>a</sup> *5	80	30	53.8	3.07		Grahams Forge <sup>a</sup>	65	13	38.2	1.55	0.1
Erasmus	74	6	41.8	4.13	T.	Longview†	84	26	50.7	3.60		Hampton	71	28	49.8	3.20	T.
Florence†	73	16	46.0	3.27		Luling†	87	30	56.2	2.49		Leesburg	68	22	41.7	1.83	1.8
Franklin	72	16	45.8	3.63	T.	Mann	85	23	53.4	3.40		Lexington†	69	16	42.8	2.10	1.5
Grace <sup>a</sup>	70	15	47.7	3.40	T.	Marshall	80	24	53.6	4.28		Manassast	68	25	44.4	1.86	1.2
Greeneville†	71	10	43.4	2.57	T.	Menardville	82	10	49.6	0.00		Marion	70 <sup>b</sup>	12 <sup>b</sup>	42.2 <sup>b</sup>	2.30	1.0
Harriman	71	16	43.4	4.53		Mount Blanco†	84	12	46.7	0.02		Miller School	71 <sup>b</sup>	22	47.0 <sup>b</sup>	2.08	.....
Hohenwald†	73	11	45.6	4.31		New Braunfels†	84	32	54.8	1.24		Petersburg†	62	22	44.4	2.43	1.5
Jackson	74 <sup>a</sup>	18 <sup>a</sup>	47.6 <sup>a</sup>	3.17		Panter	.....	.....	.....	.....		Quantico	62	24	43.0	.....	.....
Johnsonville	77	13	45.8	4.67	T.	Point Isabel <sup>a</sup>	82	46	65.8	1.55		Richmond (near)†	70	20	45.1	2.93	1.2
Jonesboro <sup>a</sup> *	68	18	42.5	2.73	0.2	Rheinland†	85	16	48.0	0.73		Rockymount†	69	18	44.3	2.44	1.0
Kingston†	.....	.....	.....	4.08	0.5	Roby	87	14	50.3	0.31		Salem†	70	21	46.4	1.50	2.5
Lafayette <sup>a</sup> *	71	14	44.2	5.08		Rockport†	84	42	61.3	.....		Speers Ferry	.....	.....	.....	3.52	T.
Lewisburg <sup>a</sup> *	73	22	47.0	3.03		Runge†	93	31	57.7	1.61		Spottsville†	77	22	46.6	4.77	1.0
Lynnyville†	73	17	46.6	3.06		San Antonio	90	32	57.6	1.35		Stanardsville†	70	22	44.6	2.46	2.0
McKenzie†	76	11	46.4	3.58		Sanderston	83	16	51.7	0.00		Staunton†	71	17	44.1	1.74	2.0
Madison	80	10	44.8	3.62	T.	San Marcos b†	85	29	52.5	1.74		Stephens City†	71	20	42.8	1.21	1.0
Maryville <sup>a</sup> *	69	16	45.5	2.97	T.	Sherman	81 <sup>a</sup>	26 <sup>a</sup>	50.4 <sup>a</sup>	2.40		Sunbeam†	77	24	48.6	3.62	T.
Newport†	75	12	43.2	2.69	T.	Temple a	85	25	53.2	2.62		Tobaccoville	70	20	45.5	2.08	1.5
Nunnelly	74	13	46.2	3.86	T.	Temple b	84	20	52.6	1.59		Warrenton	67	27	44.8	2.52	4.0
Oak Hill	75	12	44.0	4.08	0.5	Tyler	82	24	54.6	3.13		Warsaw†	70	22	45.1	2.49	T.
Palmetto†	77	14	47.0	2.67		Victoria	.....	.....	.....	.....		Westbrook	71	22	45.2	.....	.....
Perrye <sup>a</sup> *	74	20	46.3	3.35		Waco	84	26	53.8	3.00		Westpoint	72	20	43.8	.....	0.5
Pope	76	12	46.2	3.57	T.	Waxahachie†	85	21	52.1	2.50		Woodstock†	70	21	43.1	2.08	2.2
Rogersville†	70	13	43.2	2.56	T.	Weatherford†	84	21	50.6	1.21		Wytheville†	80	14	42.4	1.81	2.2
Rugby	68	9	41.4	2.32	T.	Wichita Falls†	.....	.....	0.65	2.5		Washington	.....	.....	.....	.....	.....
St. Joseph	75	13	45.1	3.31	T.	Alpine†	.....	.....	.....	1.18		Aberdeen	68	31	43.4	10.94	.....
Savannah	73	18	47.8	4.01		Blue Creek <sup>a</sup> *	60	13	32.2	2.03	7.0	Anarcotes	.....	.....	.....	5.74	0.5
Sewanee†	69	11	44.0	4.67		Brigham	.....	.....	.....	1.92		Ashford†	57	18	37.0	10.48	4.0
Silverlake	65	12	41.5	1.73	T.	Cisco†	77	10	39.6	.....		Blaine†	57	12	37.0	7.86	4.0
Springdale	76	10	44.0	3.24	T.	Corinne	76	9	34.8	1.03	6.5	Bridgeport	55	30	42.1	5.79	.....
Springfield	75	14	45.2	4.13	T.	Croydon	80	5	38.5	2.20	3.0	Brinnon	55	30	42.1	5.79	12.3
Sylvia	76	11	45.0	5.83	T.	Ferrion	75	20	48.1	0.20	3.0	Cedar Lake	.....	.....	.....	.....	.....
Tazewell	.....	.....	.....	3.49	0.3	Fillmore†	73	7	35.6	1.							

TABLE II.—*Meteorological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
<i>Washington—Cont'd.</i>				<i>In s.</i>	<i>In s.</i>	<i>Wisconsin—Cont'd.</i>				<i>In s.</i>	<i>In s.</i>	<i>Colorado.</i>				<i>In s.</i>	<i>In s.</i>	
Lind	58	11	34.7	1.37	7.7	Knapp	62	—24	28.4	1.04	9.0	Rico	66	8	39.7	0.15		
Loomis	60	14	33.4	0.34	3.0	Koepenick <sup>a</sup>	72	10	37.2	2.30	6.0	<i>Illinois.</i>	76	26	50.4	4.25		
Madrone <sup>a</sup>	57	28	43.7	4.86	T.	Lancaster <sup>a</sup>	65	—7	30.3	1.51	4.5	Cordova	.....	.....	.....	.....		
Mayfield	64	30	42.4	10.81	0.5	Lincoln	63	5	35.0	0.70	1.0	<i>Kansas.</i>	.....	.....	.....	.....		
Moxee Valley <sup>a</sup>	66	18	37.6	0.53	1.8	Madison <sup>a</sup>	63	1	33.3	0.55	2.0	Fallriver	.....	26	2.49	T.		
New Whatcom	57	26	43.8	4.08	0.8	Manitowoc <sup>a</sup>	58	5	34.8	0.65	2.5	Fort Scott	89	28	55.0	2.53		
Olea	56	31	42.2	4.31		Meadow Valley <sup>a</sup>	65	—10	31.3	1.32	6.0	Gove <sup>a</sup>	89	27	52.4	1.80	3.0	
Olympia <sup>a</sup>	58	29	45.0	6.84		Medford <sup>a</sup>	63	—12	28.4	2.45	8.5	Hoxie	84	19	46.9	0.05	0.5	
Orcas Island	55	31	43.8	3.65		Menasha	.....	.....	.....	0.77	4.0	Lebanon	86	15	49.7	0.60		
Pinehill <sup>a</sup>	59	24	39.1	4.34	1.8	Neillsville	60	—8	30.6	1.30	2.0	<i>Maryland.</i>	.....	.....	.....	.....		
Pomeroy	56	24	38.2	3.43	11.0	New London	65	—3	32.6	1.06	2.5	Pocomoke City	90	34	64.2	4.39		
Port Townsend	58	35	46.1	1.57	T.	North Crandon	60	5	31.2	1.25	6.5	Nebraska.	.....	.....	.....	.....		
Pullman <sup>a</sup>	53	18	33.4	1.85	12.0	Oconto	67	3	34.6	1.95	2.5	Albion	80	15	47.0	0.51	8.0	
Rosalia <sup>a</sup>	53	12	33.0	2.52	12.3	Osceola <sup>a</sup>	59	—34	26.4	1.69	17.0	Edgar	.....	.....	.....	.....		
Sedro <sup>a</sup>	58	28	42.5	8.88	2.5	Oshkosh	65	—2	38.8	1.75	3.5	Elba	.....	.....	.....	.....		
Shoalwater Bay <sup>a</sup>	55	35	46.2			Pepin	60	—22	28.1	1.45	9.0	Republican <sup>a</sup>	84	25	48.8	0.72	T.	
Silvana	53	28	41.0	6.52		Pine River <sup>a</sup>	66	—5	32.2	1.11	4.7	Schuyler	.....	.....	.....	.....		
Snohomish <sup>a</sup>	56	29	43.4	4.63	T.	Portage <sup>a</sup>	66	—2	31.8	0.93	2.0	Springview	89	13	47.2	2.0		
Snoqualmie Falls	.....	.....	.....	7.33		Port Washington	68	—1	35.6	1.37	2.0	<i>Nevada.</i>	.....	.....	.....	.....		
Southbend	58	31	44.6	11.79		Prairie du Chien	70	—3	36.2	1.52	5.0	Elko (near)	60	8	37.7	0.90	5.0	
Stampede	48	22	33.0	10.74	53.8	Prentice <sup>a</sup>	55	—4	26.1	2.43	5.6	McGill	74	13	43.6	T.	T.	
Sunnyridge <sup>a</sup>	62	17	38.2	0.41	1.0	Racine	67	5	36.4	1.29		<i>New Mexico.</i>	.....	.....	.....	.....		
Tunnel	42	20	33.8			Sharon	65	—2	31.6	0.92	T.	Winsor's Ranch	71	7	41.2	1.10		
Union City <sup>a</sup>	55	30	43.0	10.95	3.5	Sheboygan <sup>a</sup>	64	0	32.5	1.23	2.0	North Dakota.	.....	.....	.....	.....		
Vancouver	57	29	44.2	5.48		Spooner	58	—26	39.5	1.20	12.0	Ellendale	70	18	42.2	1.10	2.0	
Waterville	65	8	28.7	1.55	15.5	Stevens Point <sup>a</sup>	64	—8	31.0	1.15	4.0	<i>Ohio.</i>	.....	.....	.....	.....		
<i>West Virginia.</i>	.....	.....	.....	.....	Sturgeon Bay Canal <sup>a</sup>	55	—8	34.4			Shenandoah	89	25	51.8	4.09			
Beckley <sup>a</sup>	.....	.....	.....	1.36	2.0	Two Rivers <sup>a</sup>	55	9	36.7			Vanwert	90	29	55.9	2.76		
Beverly <sup>a</sup>	78	—3	39.6	4.74	15.0	Valley Junction <sup>a</sup>	64	—12	31.2	1.69	6.2	<i>South Dakota.</i>	.....	.....	.....	.....		
Bluefield	70	10	41.0	3.02	3.0	Viroqua	62	5	31.4	1.81	7.5	Mellette	82	17	41.2	1.35	6.0	
Buckhannon <sup>a</sup>	69	0	40.4	3.79	0.7	Watertown <sup>a</sup>	65	—2	32.4	1.33	5.0	Nowlin	86	8	45.7	T.	T.	
Buckhannon <sup>b</sup>	.....	.....	.....	.....	Waukesha <sup>a</sup>	63	2	31.2	0.98	4.0	<i>Tennessee.</i>	.....	.....	.....	.....			
Burlington <sup>a</sup>	70	12	39.6	1.95	4.0	Waupaca	65	5	32.2	1.11	4.2	Arlington	90	27	59.3	3.86		
Charleston <sup>a</sup>	.....	.....	.....	3.64	T.	Wausau <sup>a</sup>	62	0	31.8	2.13	6.5	Brownsville	88	30	61.0	5.08		
Dayton <sup>a</sup>	73	3	40.4	2.59	3.8	Westfield <sup>a</sup>	66	—4	32.1	1.01	3.0	Covington	88	32	60.3	0.98		
Eastbank	72	18	44.0	1.00	1.0	Westpark	66	5	35.0	1.22	2.6	Dyersburg	87	31	59.6	4.02		
Elkhorn <sup>a</sup>	70	13	43.4	2.84	2.6	Whitehall	62	—10	31.4	1.55	7.0	Milan	87	28	59.4	7.07		
Fairmont <sup>a</sup>	.....	.....	.....	2.66	3.0	<i>Wyoming.</i>	.....	.....	.....	.....	.....	Fort Clark	98	49	76.0	0.56		
Glenville <sup>a</sup>	70	11	41.0	3.03	2.0	Basin	62	—10	27.8	0.20	2.0	Golindo	.....	.....	.....	1.45		
Grafton <sup>a</sup>	74	7	42.8	3.34	6.9	Big Horn Ranch	57	—19	25.4	0.47	7.0	Marlinton	81	19	52.2	4.54		
Green Sulphur	69	10	41.9	1.21	2.0	Big Piney	.....	.....	.....	0.60	6.0							
Harpers Ferry	.....	.....	.....	3.60	4.5	Carbon	63	—6	27.6	0.48	8.6							
Hinton <sup>a</sup>	71	15	42.2		1.0	Evanston	63	—6	26.8	2.10	21.0							
Hinton <sup>b</sup>	71	15	41.6	2.60		Fort Laramie	76	5	30.2	0.55	4.5							
Huntington	73	15	41.6			Fort Washakie	63	—10	29.4	0.08	0.3							
Kingwood	71	4	39.8	3.39	6.5	Fort Yellowstone	52	—13	25.0	1.55	14.5							
Marlinton	.....	3	....	3.85	3.5	Laramie	61	—12	23.8	0.61	6.1							
Martinsburg <sup>a</sup>	66	20	41.9	2.91	5.0	Lovell	54 <sup>a</sup>	—20	25.4 <sup>a</sup>	0.17	0.4							
Morgantown <sup>a</sup>	79	9	42.2	2.67	2.0	Lusk	61	—13	25.4	0.57	5.3							
New Cumberland	73	10	41.8	2.89	3.5	Rawlins	58	—4	29.8	1.60	16.0							
New Martinsville	76	14	42.7	3.22	3.0	Sheridan	68	—12	31.0	0.43	3.0							
Nuttallburg	72	9	39.9	2.10	3.0	Thayne	58	—9	28.4									
Oldfields <sup>a</sup>	69	10	39.8	2.30	5.0	Wamsutter	60	—10	33.4									
Philippi <sup>a</sup>	73	5	41.1	3.80	6.7	Wheatland	73	2	35.2	0.76	7.0							
Philippi <sup>b</sup>	.....	.....	.....	3.32	2.0	<i>Mexico.</i>	.....	.....	.....	.....	.....							
Point Pleasant <sup>a</sup>	74	15	42.8	2.67	T.	Ciudad P. Diaz	83	36	78.2	1.75								
Powellton	70	14	41.8	3.41	1.0	Leon de Aldamas	77	35	60.9	1.14								
Romney	69	19	41.1	2.07	1.8	Puebla	77	34	57.7	3.48								
Rowlesburg <sup>a</sup>	74	11	42.4	2.52	11.0	Topolobampo	.....	.....	.....	0.50								
Upper Tract	.....	.....	.....	2.16	4.0	<i>New Brunswick.</i>	.....	.....	.....	.....	.....							
Weston <sup>a</sup>	70	8	41.3		3.50	Alabama.	.....	.....	.....	.....	.....							
Weston <sup>b</sup>	70	13	43.7	2.45	2.5	Newton	89	29	61.7	3.82								
Wheeling <sup>a</sup>	.....	.....	.....	2.66	2.7	Arizona.	.....	.....	.....	.....	.....							
Wisconsin.	65	—5	32.2	1.70	6.0	Rye	100	20	52.6	0.00								
Amherst	.....	.....	.....	1.00	6.0	Walnut Grove	.....	.....	.....	0.00	.....							
Baron	.....	—20	....	1.00	6.0	California.	.....	.....	.....	.....	.....							
Bayfield	59	—6	30.2	1.40	12.0	Folsom <sup>a</sup>	87	45	62.8	0.85								
Beloit	64	2	33.8	1.60	4.2	Hueneme	89	42	60.4	0.10								
Brookhead	68	—4	34.2	1.17	7.0	Kennedy Gold Mine	83	37	60.4	1.13								
Chilton	65	0	34.8	0.38	2.2	Kernville	.....	.....	.....	0.05								
Citypoint	65	—5	31.2	2.20	4.5	Mount Frazier	.....	.....	.....	0.00								
Delavan	65	—5	32.4	1.11	3.5	Hayward	64	—21	32.6	1.24	6.2	Saticoy	.....	.....	.....	0.10		
Dodgeville	.....	.....	.....	1.88	7.0	Yuba City <sup>a</sup>	70	48	57.5	0.50								
Easton	67	—13	32.9	1.74	5.6		.....	.....	.....	.....	.....							
Eau Claire	63	—12	30.2	1.79	9.5		.....	.....	.....	.....	.....							
Florence <sup>a</sup>	63	0	30.5	1.12	3.5		.....	.....	.....	.....	.....							
Fond du Lac	61	—2	33.8</td															

TABLE III.—Data furnished by the Canadian Meteorological Service, November, 1898.

Stations.	Pressure.			Temperature.			Precipitation.			Stations.	Pressure.			Temperature.			Precipitation.				
	Mean not reduced.	Mean reduced.	Departure from normal.	Mean.	Departure from normal.	Mean max. min. num.	Total.	Departure from normal.	Depth of snow.		Mean.	Departure from normal.	Mean.	Departure from normal.	Mean max. min. num.	Total.	Departure from normal.	Depth of snow.			
St. Johns, N. F.	In. 29.84	In. 30.00	+0.7	40.5	+1.0	46.2	34.8	8.18	1.0	Saugeen, Ont.	In. 29.29	In. 30.03	+0.1	36.6	32.6	30.5	In. 2.12	In. 1.78	In. 14.0		
Sydney, C. B. I.	29.91	29.95	-0.1	42.2	+1.5	51.1	49.6	34.7	9.37	+3.76	0.0	Parry Sound, Ont.	29.20	30.01	-0.1	34.9	31.6	27.3	3.63	0.58	12.7
Halifax, N. S.	29.84	29.97	-0.3	43.4	+1.6	50.3	36.5	10.25	+5.03	3.7	Port Arthur, Ont.	29.16	29.89	-1.2	38.1	4.1	36.6	19.6	0.77	-1.21	1.2
Grand Manan, N. B.	29.90	29.95	-0.5	39.7	+0.8	44.8	31.5	10.05	+5.82	13.9	Winnipeg, Man.	29.07	29.95	-1.2	19.4	+1.4	28.1	10.6	2.00	+1.01	19.0
Yarmouth, N. S.	29.87	29.95	-0.9	41.5	+1.6	47.7	35.4	8.44	+5.50	7.0	Minnedosa, Man.	29.06	29.97	-0.7	17.9	+0.6	27.4	8.4	+0.25	9.0	
Charlottet'n, P. E. I.	29.88	29.93	-0.9	40.4	+1.9	45.3	35.5	5.66	+1.03	4.5	Qu'Appelle, Assin.	27.57	29.95	-0.8	17.4	-1.4	25.4	9.4	1.44	+0.84	14.2
Chatham, N. B.	29.94	29.96	-0.2	35.6	+4.6	41.3	29.8	4.34	+0.92	17.6	Medicine Hat, Assin.	27.54	29.93	-1.1	23.2	-4.2	33.3	13.2	1.23	+0.90	12.0
Father Point, Que.	29.95	29.98	+0.3	30.8	+1.9	37.2	24.3	3.76	+0.30	15.1	Swift Current, Assin.	27.29	29.93	-0.7	22.0	-1.2	30.0	14.0	0.41	-0.10	4.0
Quebec, Que.	29.91	29.95	-0.4	31.0	+2.0	36.3	25.8	1.61	-2.41	11.6	Calgary, Alberta	26.25	29.93	-1.1	21.7	-4.1	31.3	12.1	0.30	-0.05	3.0
Montreal, Que.	29.81	30.03	+0.1	34.0	+2.2	40.1	27.9	2.15	-1.03	15.7	Banff, Alberta	25.20	30.02	-0.1	20.9	-1.1	27.9	13.8	0.94	-0.21	9.4
Rockliffe, Ont.	29.49	30.02	+0.2	31.9	+3.3	40.1	23.8	1.42	-1.23	1.2	Edmonton, Alberta	27.49	29.89	-1.3	12.6	-0.3	31.4	13.7	0.53	+0.31	4.4
Ottawa, Ont.	29.71	30.04	-0.3	32.7	+1.0	40.2	25.2	1.43	.....	10.7	Prince Albert, Sask.	28.26	29.86	-1.8	16.6	+1.2	24.6	8.5	0.90	-0.21	9.0
Kingston, Ont.	29.72	30.04	-0.0	36.7	+1.7	43.9	29.6	1.26	-2.16	4.1	Battleford, Sask.	28.12	29.96	-1.4	16.4	+2.7	24.2	8.5	0.68	-0.21	6.7
Toronto, Ont.	29.66	30.06	+0.1	36.1	+0.5	43.6	28.5	3.01	+0.08	14.1	Kamloops, B. C.	28.65	29.97	-1.1	32.6	-1.1	37.8	27.4	1.44	-0.21	9.5
White River, Ont.	29.56	29.98	-0.8	24.9	+4.4	33.9	15.9	2.02	+0.13	9.9	Esquimalt, B. C.	29.94	29.97	-1.5	19.1	-4.7	39.4	9.4	4.44	-0.21	0.0
Port Stanley, Ont.	29.40	30.06	+0.1	36.8	0.0	44.0	29.5	3.43	+0.28	9.0	Hamilton, Bermuda	29.92	30.08	+0.3	67.9	-0.8	72.5	63.3	5.31	-0.05	3.0

TABLE IV.—Mean temperature for each hour of seventy-fifth meridian time, November, 1898.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midn.	Mean.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Bismarck, N. Dak.	21.0	20.3	19.8	19.3	19.1	18.3	17.7	17.4	16.7	16.0	20.3	24.0	27.5	29.7	31.3	31.8	30.7	28.3	26.1	24.6	23.1	22.3	20.6	23.3	
Boston, Mass.	39.3	39.6	39.0	38.9	38.6	38.4	38.4	39.3	40.5	41.9	43.4	45.0	45.5	45.8	45.3	45.1	44.6	43.3	42.5	41.9	41.4	40.8	40.3	41.8	
Buffalo, N. Y.	37.9	37.5	37.5	37.6	37.6	37.8	37.8	37.9	38.7	39.1	41.1	42.2	43.2	43.4	43.3	42.9	42.0	41.3	40.7	39.2	38.3	38.1	39.8	39.8	
Chicago, Ill.	35.7	34.8	34.2	33.5	32.8	32.4	31.9	31.3	32.3	32.6	33.5	34.9	36.6	37.8	38.8	39.7	40.6	40.7	41.1	41.4	42.7	42.2	41.7	42.5	
Cincinnati, Ohio	41.6	41.4	41.1	40.8	39.9	39.0	38.4	38.4	39.0	39.9	41.9	43.8	44.8	45.9	45.9	45.6	46.9	46.2	44.7	43.8	42.7	42.2	41.7	42.5	
Cleveland, Ohio	38.1	37.8	37.2	37.1	37.0	36.8	36.9	37.2	38.3	38.9	40.7	41.7	42.4	42.6	42.6	42.5	42.1	41.4	40.7	40.3	39.4	38.8	38.0	39.5	
Detroit, Mich.	36.5	36.1	35.6	35.4	35.4	35.1	34.9	34.9	35.6	36.7	37.7	38.5	39.5	40.6	41.0	41.1	40.2	39.6	37.3	36.7	36.4	37.5	36.4	37.5	
Dodge, Kans.	35.3	34.1	33.2	32.4	31.5	30.9	29.9	29.4	29.1	29.2	32.4	37.2	41.7	44.6	47.0	48.3	49.7	48.9	45.5	40.7	38.1	36.8	35.9	34.6	38.2
Eastport, Me.	38.5	38.5	38.1	37.5	37.5	37.3	37.3	37.8	38.5	39.6	40.1	40.9	41.2	41.3	41.0	40.7	39.9	39.4	37.7	36.1	35.2	34.9	33.2	32.2	
Galveston, Tex.	57.3	57.0	56.8	56.4	55.9	55.7	55.6	55.0	55.9	56.0	57.9	59.2	60.2	60.4	60.9	61.3	60.9	59.4	58.2	58.6	58.0	57.6	57.1	57.1	
Havre, Mont.	26.0	25.9	25.5	24.5	24.4	23.6	23.8	23.7	23.8	25.0	26.8	29.3	31.1	32.3	33.3	33.7	33.9	33.0	31.4	29.9	27.7	27.0	26.0	27.5	
Kansas City, Mo.	39.3	37.4	36.9	35.7	35.0	34.8	34.2	34.0	34.7	37.2	39.4	41.6	43.6	44.9	45.8	45.9	45.4	44.3	42.0	40.6	39.5	38.8	38.2	39.6	
Key West, Fla.	73.8	73.0	73.5	73.5	73.1	73.1	73.1	73.9	75.1	75.0	77.2	77.8	77.9	77.7	77.7	77.2	76.8	76.0	74.9	74.5	74.3	74.0	73.9	75.0	
Memphis, Tenn.	46.6	45.9	45.2	44.7	43.9	43.5	43.6	43.6	44.5	46.4	48.9	51.2	53.2	54.7	55.1	55.8	55.5	54.3	52.9	51.2	50.2	49.4	48.2	47.5	
Mt. Tamalpais, Cal.	50.9	50.9	50.3	50.2	49.9	49.9	49.2	49.0	48.7	48.8	49.4	49.8	50.4	51.7	52.5	53.2	53.7	52.7	51.5	50.8	51.0	51.1	50.9	50.8	
New Orleans, La.	55.8	54.1	53.4	52.8	52.2	52.2	52.3	52.1	53.1	54.1	54.9	56.9	56.5	57.2	57.2	57.5	57.7	57.0	56.6	56.2	56.2	56.2	56.2	56.1	
New York, N. Y.	49.0	42.4	41.9	41.7	40.9	40.8	40.8	42.7	43.6	45.0	45.9	46.7	47.2	47.6	47.4	47.4	47.4	46.9	46.4	45.6	44.4	43.6	43.1	44.5	
Philadelphia, Pa.	42.3	41.9	40.4	40.4	40.2	40.3	41.5	42.5	43.7	45.7	47.1	48.4	49.4	49.7	49.3	48.4	47.1	45.5	44.5	43.7	43.4	42.6	44.4	44.4	
Pittsburg, Pa.	40.0	39.5	39.2	39.3	38.1	38.7	39.0	39.6	40.3	42.0	43.7	45.5	47.0	48.1	48.3	47.6	47.0	45.7	44.2	43.4	42.2	41.4	40.7	42.6	
Portland, Oreg.	43.0	42.7	42.3	41.9	41.7	41.5	41.3	41.0	41.0	41.1	41.5	42.5	43.6	45.4	46.5	47.2	47.2	46.2	45.1	44.7	44.2	43.8	43.5	43.5	
St. Louis, Mo.	41.4	40.6	39.8	39.1	38.2	38.0	37.8	37.9	38.7	40.1	41.4	44.8	46.9	48.5	49.1	49.1	48.7	47.7	46.5	45.5	44.5	43.4	42.3	41.5	
St. Paul, Minn.	28.5	28.0	27.4	27.1	26.7	26.4	25.9	25.4	25.2	25.9	27.9	30.0	32.1	33.3	34.7	35.5	34.5	34.5	33.0	31.6	30.1	29.2	28.0	29.6	
Salt Lake City, Utah.	35.5	34.8	33.6	32.2	32.1	31.6	31.7	31.1	31.5	34.1	37.6	40.3	41.8	43.1	44.0	43.7	43.2	42.3	41.0	39.8	38.7	37.7	37.2	37.2	
San Diego, Cal.	56.8	56.2	55.8	55.2	54.5	54.3	53.9	53.6	53.4	53.8	56.0	60.4	63.6	64.9	65.6	65.4	65.0	64.5	63.2	61.3	59.8	57.6	57.1	59.1	
San Francisco, Cal.	59.5	58.2	58.3	58.1	58.4	58.0	58.6	58.1	58.5	58.2	58.4	59.6	60.1	60.8	61.4	61.6	61.2	60.5	59.7	59.2	58.7	58.2	57.6	56.9	
Savannah, Ga.	54.1	53.6	53.0	52.3	51.8	51.1	51.0	51.6	54.5	57.6	60.1	62.2	63.4	64.0	64.9	65.1	64.4	63.7	62.4						

TABLE VI.—Average wind movement for each hour of seventy-fifth meridian time, November, 1898.

Stations.	1 a.m.												Midnight.												Mean.
	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.			
Abilene, Tex.	10.8	10.2	9.5	9.4	8.7	9.7	9.9	9.2	9.1	9.5	11.6	12.4	13.1	13.5	14.0	13.5	12.9	11.3	9.4	9.1	10.0	10.2	10.0	10.8	
Albany, N. Y.	7.3	7.4	7.6	6.9	6.9	6.5	6.9	7.3	7.8	8.9	9.3	9.8	10.3	10.2	9.6	8.6	7.9	7.3	7.8	8.5	8.2	7.4	7.8	8.1	
Alpena, Mich.	10.7	10.4	10.8	11.0	10.4	10.2	10.2	10.0	10.4	10.6	11.1	11.6	12.9	13.0	13.0	12.5	12.1	11.0	11.3	12.0	11.6	11.2	10.5	11.3	
Amarillo, Tex.	17.6	17.4	17.2	17.3	16.1	16.6	16.1	16.7	17.0	15.8	17.7	19.5	21.2	21.6	22.0	22.1	21.2	20.4	19.1	16.0	16.0	14.5	15.7	16.3	
Atlanta, Ga.	8.6	8.3	8.7	8.7	9.5	9.6	9.2	8.8	9.2	9.9	10.2	10.5	10.9	11.0	10.8	10.6	9.8	8.9	9.5	9.3	9.5	9.3	9.3	9.6	
Atlantic City, N. J.	11.5	11.9	11.5	11.4	11.6	11.9	11.9	11.8	12.0	13.1	13.1	12.0	12.9	13.0	13.4	12.6	12.1	11.5	11.3	11.1	11.3	11.7	11.3	12.0	
Augusta, Ga.	5.8	4.9	4.8	4.8	5.1	5.2	5.4	5.0	6.1	6.5	6.7	7.4	8.1	8.5	8.3	8.0	6.3	6.4	6.2	5.8	6.0	5.5	5.0	6.2	
Baker City, Oreg.	4.8	5.2	5.4	5.3	4.9	4.9	4.8	4.8	5.2	5.0	4.3	5.0	4.4	4.3	4.2	4.5	4.8	5.5	4.2	3.8	4.0	4.2	4.5	5.1	4.7
Baltimore, Md.	4.0	4.1	4.6	4.6	4.5	4.5	4.5	4.9	5.0	5.6	5.7	6.0	6.5	6.3	6.7	5.6	4.9	4.3	3.9	3.8	4.2	4.1	4.9		
Bismarck, N. Dak.	8.0	7.3	7.4	7.8	8.3	7.8	8.5	8.7	9.1	9.2	9.7	11.9	13.7	14.4	14.9	15.5	14.0	11.6	9.2	8.0	7.3	7.5	7.7	8.0	9.8
Block Island, R. I.	18.9	18.7	18.9	19.0	18.8	18.2	19.2	19.8	18.6	19.0	18.5	17.6	18.7	17.8	17.2	16.6	16.8	17.1	17.2	17.0	17.7	18.0	18.3	18.7	18.2
Boston, Mass.	12.5	11.8	11.8	12.2	12.4	12.4	12.4	12.4	12.5	12.8	13.3	13.7	13.2	13.5	13.3	12.4	11.9	11.6	11.2	11.4	11.8	12.2	12.4	12.5	
Buffalo, N. Y.	16.1	16.8	16.8	16.1	17.0	16.2	16.1	16.5	16.6	17.1	17.8	17.9	16.9	16.8	16.0	16.6	15.3	15.2	16.5	16.2	16.0	17.2	17.0	16.5	
Cairo, Ill.	9.2	9.0	9.1	8.8	8.8	8.5	9.1	9.3	10.3	11.2	11.8	11.5	11.7	11.3	11.1	10.8	8.9	7.7	7.7	7.9	8.3	9.2	9.5	9.5	
Cape Henry, Va.	16.0	16.2	15.8	15.7	16.0	17.2	16.7	16.0	16.2	17.0	17.1	16.9	16.5	15.5	15.2	15.6	14.6	13.9	14.9	15.5	16.0	16.2	15.7	15.9	
Carson City, Nev.	6.6	6.5	6.2	5.9	5.6	4.8	4.5	4.5	3.4	3.6	3.9	4.1	4.8	5.2	5.1	4.8	4.1	3.8	3.6	3.7	3.8	3.8	3.9	4.0	4.5
Charleston, S. C.	10.4	10.9	11.2	11.6	11.7	12.0	12.3	12.1	12.2	11.6	12.5	12.7	12.6	12.7	12.4	12.7	11.9	10.2	10.0	9.7	9.8	10.7	10.3	11.5	
Charlotte, N. C.	5.8	6.0	5.7	5.8	6.1	5.5	6.0	6.1	6.4	7.7	8.2	8.6	8.5	8.7	8.1	7.3	6.1	6.3	6.5	6.0	6.1	6.1	6.8		
Chattanooga, Tenn.	6.5	6.7	7.2	7.2	7.2	7.0	6.7	6.7	7.3	8.3	9.8	10.1	10.4	10.9	11.2	10.2	10.3	8.6	7.5	6.8	7.0	7.0	6.6	8.1	
Cheyenne, Wyo.	10.9	9.4	9.5	9.2	9.5	10.1	10.6	10.2	10.5	11.5	13.0	14.7	15.1	15.6	15.4	15.0	13.8	12.2	10.0	10.3	9.9	9.9	10.2	11.5	
Chicago, Ill.	20.6	18.9	18.7	19.2	19.4	19.4	20.2	20.5	21.7	21.9	22.5	22.7	24.6	23.9	24.1	23.0	22.9	20.4	21.2	21.1	20.9	20.2	19.3	21.2	
Cincinnati, Ohio.	6.8	5.7	5.8	5.7	6.0	6.0	6.9	7.4	8.3	9.3	9.9	10.7	11.3	11.0	10.8	10.7	10.3	9.4	8.9	8.1	7.8	7.1	7.0	8.3	
Cleveland, Ohio.	19.0	18.7	18.4	17.7	17.5	16.9	16.8	16.5	16.8	17.1	16.5	16.4	16.4	16.3	16.1	16.3	16.8	17.1	17.6	17.9	19.3	19.3	17.2		
Columbia, Mo.	9.9	9.4	8.5	8.0	8.3	8.4	8.6	8.6	9.7	9.8	10.9	11.3	11.6	11.8	11.4	10.7	9.7	8.7	8.7	9.2	9.8	10.0	9.8	9.8	
Columbus, Ohio.	7.5	7.1	7.1	7.1	7.0	7.1	7.0	7.4	8.2	9.3	9.8	10.7	10.8	10.6	10.3	9.0	8.1	8.4	8.4	8.2	7.6	7.0	8.4		
Concordia, Kans.	7.1	6.9	6.8	7.8	6.9	6.8	6.8	7.1	6.8	7.2	8.6	9.8	10.3	11.0	10.5	10.9	10.3	9.1	7.0	6.4	6.3	6.7	7.1	8.0	
Corpus Christi, Tex.	10.1	9.8	9.2	9.8	10.2	10.1	10.1	9.9	9.6	10.1	10.4	11.3	11.5	12.0	11.8	12.1	11.7	11.4	10.4	10.4	10.3	10.7			
Davenport, Iowa.	7.7	7.9	7.9	7.4	7.4	7.6	8.0	8.3	8.8	9.3	10.6	11.8	12.6	12.1	11.8	11.2	9.9	8.0	7.3	7.7	7.8	7.2	8.9		
Denver, Colo.	8.9	8.3	7.9	7.9	6.4	6.8	7.5	7.4	7.3	7.6	7.6	8.1	9.3	9.5	10.4	9.8	10.1	9.5	8.8	8.5	8.8	6.8	7.8	8.2	
Des Moines, Iowa.	7.5	7.6	7.3	7.6	7.3	7.6	7.4	7.4	8.0	7.3	8.4	9.5	10.9	11.4	11.7	11.0	10.8	10.4	9.3	7.6	7.9	7.5	7.1	8.6	
Detroit, Mich.	10.9	11.1	11.3	11.2	10.8	10.8	10.7	10.5	10.8	11.5	12.1	12.0	12.9	13.1	13.0	12.8	12.0	11.1	11.0	11.4	11.6	11.9	11.7	11.6	
Dodge, Kans.	12.1	12.1	11.6	11.8	11.1	10.7	10.3	10.1	9.7	11.2	12.9	14.9	16.3	15.9	16.1	15.6	14.8	12.4	9.2	8.3	8.9	9.8	10.8	11.1	12.0
Dubuque, Iowa.	7.4	8.0	7.7	7.4	7.3	7.6	8.0	8.4	8.3	9.8	10.2	10.4	11.5	11.8	11.5	10.6	9.3	7.3	7.2	7.3	6.9	7.6	8.6	8.5	
Duluth, Minn.	11.5	12.2	12.8	12.6	11.8	10.9	11.0	11.1	9.9	9.4	11.0	11.9	12.2	12.0	12.2	12.3	11.4	10.7	11.0	11.7	11.3	11.9	11.7	11.5	
Eastport, Me.	14.9	13.9	14.0	14.1	13.9	13.7	13.7	14.0	15.1	15.8	15.9	15.3	15.5	15.5	15.1	14.1	13.8	13.9	13.9	13.7	14.2	15.1	15.1	14.5	
El Paso, Tex.	11.4	11.8	11.7	11.0	10.9	11.2	10.4	10.0	9.9	9.4	9.7	11.5	13.6	14.2	15.1	16.0	15.0	15.4	13.9	11.5	10.1	10.3	10.4	11.4	11.9
Erie, Pa.	13.3	14.1	14.3	15.2	15.3	15.1	14.4	14.2	14.8	14.6	14.3	14.0	12.8	12.6	12.2	11.2	10.9	11.3	12.1	12.5	13.5	14.0	14.2	13.5	
Escanaba, Mich.	9.6	10.0	9.5	9.6	9.1	9.0	9.3	10.3	10.7	11.1	11.8	11.9	12.7	13.0	13.2	12.6	11.4	10.8	10.2	10.2	10.3	10.5	10.7		
Eureka, Cal.	3.7	3.0	3.2	3.0	3.0	3.3	3.0	2.9	3.0	3.2	2.9	3.4	4.5	5.1	6.8	7.3	9.0	9.5	8.0	6.7	6.7	6.6	5.3	3.9	4.7
Evansville, Ind.	7.7	7.6	7.2	7.5	7.8	7.4	7.2	7.6	8.2	9.4	10.6	11.4	12.0	12.8	13.5	13.0	12.0	11.6	10.6	10.5	10.5	11.4	12.2		
Fort Canby, Wash.	14.1	13.6	14.4	15.5	14.6	14.0	13.9	14.0	13.4	13.4	12.9	12.7	13.5	13.2	13.0	13.0	13.5	12.5	12.8	13.1	13.0	14.9	15.0	13.6	
Fort Smith, Ark.	6.6	6.6	6.5	6.6	7.0	6.8	6.8	6.9	6.5	7.2	7.6	7.8	7.9	8.5	8.9	9.2	8.9	8.9	7.5	7.0	6.5	6.3	6.1	7.2	
Fresno, Cal.	3.8	3.4	3.8	3.3	3.1	3.5	3.6	3.4	3.6	3.7	3.2	3.3	3.6	4.0	4.1	3.9	3.8	3.6	3.0	2.9	3.1	3.1	3.5		
Galveston, Tex.	10.6	10.6	10.4	10.6	11.2	11.7	11.4	11.8	11.5	11.6	11.7	12.0	12.0	11.7	11.6	11.7	10.8	11.0	10.4	10.3	10.4	11.1	11.1	11.4	
Grand Haven, Mich.	13.0	13.2	13.4	13.1	12.9	12.6	12.7	12.6	12.9	13.3	13.7	14.6	14.3	14.4	14.8	14.0	13.5	13.4	12.8	13.2	13.6	12.5	13.4		
Green Bay, Wis.	8.6	8.8	8.6	8.4	8.4	8.6	8.4	8.6	9.8	11.0	11.9	11.9	12.2	10.7	9.6	8.6	8.2	9.0	9.0	8.3	8.4	9.4			
Hannibal, Mo.	9.5	8.5	9.4	9.0	9.0	9.8	9.7	9.3	10.4	11.3	12.3	12.8	13.2	13.8	13.2	12.4	11.1	9.6	9.6	10.4	10.4	10.3	10.5		
Harrisburg, Pa.	7.9	7.6	7.8	8.5	8.2	8.4	8.5	8.7	8.7	9.8															

TABLE VI.—Average wind movement, etc.—Continued.

Stations.	Average wind movement, etc.												Continued.												
	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
North Platte, Nebr...	7.7	7.8	7.6	7.7	7.8	7.8	7.7	7.8	7.6	7.2	8.8	10.3	12.0	13.1	14.0	13.9	13.0	11.5	8.8	7.9	8.1	8.3	7.6	7.7	9.2
Oklahoma, Okla....	10.5	11.1	10.5	10.0	10.0	10.4	10.2	10.8	10.4	12.0	13.7	14.4	14.6	15.4	15.1	14.4	12.7	10.5	10.0	10.2	9.8	10.0	10.3	11.8	
Omaha, Nebr....	8.5	8.2	7.9	7.6	7.4	7.5	7.4	7.6	7.4	7.8	9.3	10.2	10.7	10.2	10.1	10.5	10.0	9.0	7.8	7.8	7.9	8.4	8.6	9.0	8.6
Oswego, N. Y....	12.7	13.7	13.4	13.6	13.8	13.5	13.3	13.3	13.5	13.3	13.6	13.8	14.0	13.8	13.0	12.8	12.8	12.7	13.2	13.1	13.2	12.6	12.4	13.2	13.8
Palestine, Tex....	6.6	6.8	6.7	6.9	6.9	6.7	6.9	6.8	6.7	7.5	8.2	9.1	10.1	9.5	9.2	9.3	9.1	8.1	6.6	5.8	6.1	6.7	6.8	7.0	7.5
Parkersburg, W. Va...	5.8	5.5	5.4	4.9	5.0	4.6	5.0	4.7	4.7	5.8	6.9	8.2	8.4	8.9	8.2	7.3	6.0	5.8	5.5	5.6	6.1	5.9	5.9	6.2	
Pensacola, Fla....	9.4	10.0	9.4	9.5	10.0	10.5	10.6	10.9	12.4	12.8	12.9	12.6	11.4	10.7	11.2	11.0	10.4	9.3	8.8	8.6	8.9	9.1	9.7	9.8	10.4
Philadelphia, Pa....	9.4	9.0	9.2	8.5	8.7	8.6	9.1	9.7	10.0	11.4	11.7	11.6	12.4	12.7	11.8	10.8	10.2	9.8	9.9	9.8	9.0	10.4	10.2		
Phenix, Ariz....	3.2	3.1	3.2	3.4	3.4	3.3	3.0	3.2	3.4	3.7	4.8	5.2	5.1	4.9	4.6	4.7	4.6	3.7	3.0	2.9	2.8	2.5	2.9	3.7	3.7
Pierre, S. Dak....	9.7	9.5	8.9	9.0	9.5	8.8	9.1	9.7	9.6	10.1	12.4	13.0	14.8	15.4	16.2	15.6	14.7	12.2	10.2	9.9	9.4	9.1	9.6	9.2	11.1
Pittsburg, Pa....	5.9	5.8	5.5	5.6	5.3	5.4	5.5	5.7	6.4	6.8	6.9	7.5	7.6	7.7	7.7	7.5	7.0	6.8	6.5	6.3	6.8	6.0	6.5	6.4	6.4
Point Reyes Lt., Cal...	17.9	17.6	17.2	17.3	17.5	17.9	17.6	18.1	16.6	16.3	16.3	15.2	13.6	13.5	13.9	14.3	15.2	16.7	18.1	19.0	19.5	19.6	19.7	19.0	17.0
Port Huron, Mich....	12.0	11.8	12.0	11.4	11.6	11.7	11.4	11.7	12.3	12.5	13.2	12.8	13.3	14.0	14.3	13.9	13.5	12.8	13.1	13.8	13.9	14.5	14.0	12.6	12.8
Port Crescent, Wash...	3.1	3.7	4.0	3.9	3.7	3.4	4.0	4.0	3.6	3.6	3.6	3.4	3.9	4.7	5.5	5.4	5.6	4.7	4.1	3.6	3.2	2.9	3.7	3.8	4.0
Portland, Me....	7.9	8.2	7.9	7.6	7.3	8.1	8.1	8.4	8.9	9.0	8.7	8.6	9.5	9.8	8.7	8.2	8.5	8.7	8.7	8.1	8.2	8.3	8.4	8.4	
Portland, Oreg....	9.2	9.4	10.0	10.3	9.9	9.4	9.3	9.9	9.0	9.1	9.7	9.5	10.1	10.5	10.1	10.3	10.0	8.8	8.0	8.0	9.0	9.5	9.4	9.5	
Pueblo, Colo....	6.9	6.4	6.0	6.1	6.4	6.3	7.0	6.2	6.3	6.5	6.3	6.4	7.8	7.9	8.8	10.3	10.4	9.0	7.4	7.0	6.3	6.3	7.3		
Raleigh, N. C....	6.1	6.3	5.9	5.7	5.8	5.7	5.7	5.6	6.5	7.1	7.7	7.4	7.7	7.3	7.4	7.1	6.6	6.1	5.9	6.0	5.9	5.7	5.8	5.4	
Rapid City, S. Dak....	7.0	6.9	6.7	7.1	6.9	7.7	7.8	7.4	7.1	6.7	7.0	7.3	8.8	10.3	11.2	11.8	11.3	9.7	8.3	6.5	6.2	6.1	6.1	7.8	
Red Bluff, Cal....	6.4	6.0	6.2	6.1	6.0	5.9	5.9	6.1	5.7	5.3	5.1	5.6	6.5	7.3	7.9	8.4	8.3	7.8	6.5	6.6	7.1	6.5	6.1	6.6	
Richmond, Va....	5.0	5.4	5.2	5.1	5.1	4.9	5.1	5.3	5.6	7.3	7.0	7.4	7.8	7.4	6.8	6.5	6.2	5.5	5.2	5.3	5.3	5.1	4.9	5.8	
Rochester, N. Y....	8.0	7.3	8.1	8.0	8.0	7.5	8.0	8.0	9.0	9.4	9.9	10.1	10.3	10.1	10.3	9.3	8.5	7.5	7.0	7.3	7.0	7.6	8.4		
Roseburg, Oreg....	2.3	1.8	2.2	2.2	2.6	2.4	2.5	2.3	2.3	2.7	3.0	3.0	3.5	3.9	4.1	4.7	4.6	4.7	4.0	3.2	3.1	2.4	2.7	2.6	3.0
Sacramento, Cal....	7.9	8.6	8.6	9.3	8.7	8.4	8.1	8.0	8.0	7.7	7.1	6.6	7.4	8.0	8.6	8.9	8.5	7.9	7.1	8.0	7.9	7.5	8.0		
St. Louis, Mo....	10.5	10.9	10.2	10.3	10.0	9.8	9.6	10.4	11.0	11.4	12.0	12.5	12.8	12.9	12.8	12.8	12.8	12.1	10.5	10.3	11.0	11.6	10.9	10.2	11.2
St. Paul, Minn....	8.1	8.4	8.5	8.2	8.1	8.3	7.9	8.8	8.4	8.6	8.8	9.4	10.2	10.7	11.1	10.8	10.4	9.7	9.3	8.8	8.5	8.2	8.0	8.1	9.0
Salt Lake City, Utah...	4.3	4.6	4.2	3.5	3.6	4.5	4.1	3.9	4.2	4.4	4.3	4.4	5.1	6.9	7.3	8.0	7.7	7.0	6.1	4.9	4.5	4.8	5.2	5.1	5.1
San Antonio, Tex....	8.9	8.2	7.8	7.2	7.4	7.1	7.2	7.2	7.5	8.2	10.7	11.9	11.6	11.8	12.2	11.7	10.9	10.5	9.0	8.8	10.1	10.0	9.7	9.3	9.4
San Diego, Cal....	3.7	4.3	4.4	4.0	4.4	4.5	4.8	4.6	4.6	4.9	3.4	3.8	5.0	6.3	8.0	9.4	10.2	9.4	8.2	8.8	4.5	3.4	3.8	5.4	
Sandusky, Ohio, Mich...	9.1	9.2	8.6	8.4	8.4	8.5	8.3	7.6	8.4	9.8	10.1	10.1	10.0	10.4	10.9	10.8	10.4	9.2	8.6	8.2	8.8	9.3	9.9	9.6	9.0
San Francisco, Cal...	6.3	5.1	5.2	4.9	5.5	5.8	5.9	5.7	5.5	5.5	5.8	6.5	7.6	7.0	7.1	7.5	9.9	10.9	11.8	12.7	11.2	9.2	7.7	7.0	7.4
San Luis Obispo, Cal...	3.3	3.7	3.6	3.9	4.1	4.8	4.7	4.7	4.5	4.5	4.3	4.1	5.4	6.5	7.0	7.3	7.4	6.9	5.4	5.1	4.1	3.5	3.4	5.0	
Santa Fe, N. Mex....	5.9	5.8	5.4	5.5	4.9	5.0	4.3	4.5	4.6	4.2	5.1	5.5	9.1	9.5	9.9	10.3	10.4	9.9	7.9	4.9	5.7	6.0	6.3	6.2	6.6
Sault Ste. Marie, Mich...	8.8	8.9	8.6	9.5	9.8	9.3	9.3	9.4	9.0	8.9	9.5	10.1	10.0	10.4	10.9	10.8	10.1	9.4	9.5	10.1	10.0	9.8	9.4	8.9	9.6
Savannah, Ga....	8.2	7.9	7.7	7.7	7.1	6.9	7.5	7.4	8.7	10.1	10.5	11.2	11.0	11.4	10.8	10.4	8.0	7.5	7.7	8.2	8.6	8.5	8.3	8.8	
Seattle, Wash....	8.3	7.7	8.2	7.4	7.4	7.0	7.0	7.2	6.9	6.3	6.4	6.2	7.1	7.0	7.0	7.3	7.9	8.4	7.6	7.2	6.9	7.0	7.5	8.0	7.8
Shreveport, La....	7.5	7.3	7.3	7.3	7.3	7.2	7.2	6.8	6.8	7.7	7.8	7.8	8.6	8.6	9.0	9.3	9.3	8.4	7.4	7.1	7.7	7.5	7.8		
Sioux City, Iowa....	14.1	14.7	13.7	13.3	13.6	12.6	12.3	12.4	11.6	12.3	13.1	14.8	16.1	17.0	17.4	17.8	17.9	15.2	14.1	13.5	14.5	13.8	13.5	13.6	14.3
Spokane, Wash....	5.2	4.4	5.6	6.2	6.2	6.3	6.0	6.5	6.4	6.3	6.5	6.7	6.8	7.3	7.8	7.1	7.6	6.7	6.2	5.8	5.6	5.8	6.3		
Springfield, Ill....	10.5	10.7	10.0	9.5	9.8	9.1	10.0	9.9	10.6	12.0	12.9	13.0	13.5	13.7	13.2	12.6	11.3	9.8	9.5	9.7	9.8	10.0	9.8	9.7	10.8
Springfield, Mo....	11.6	11.3	11.9	11.9	12.0	12.0	12.1	12.3	11.9	12.4	13.3	13.2	13.5	13.8	14.2	14.3	13.7	12.1	10.8	10.3	11.0	11.4	10.7	11.0	12.2
Tacoma, Wash....	7.2	6.7	6.2	6.4	5.9	6.0	6.2	6.8	6.5	6.3	6.7	7.2	8.0	8.2	9.0	9.1	8.5	8.0	7.7	7.2	6.8	7.2	7.2		
Tampa, Fla....	5.6	5.6	5.5	5.0	4.9	4.7	5.1	5.5	5.0	5.7	6.0	8.2	8.8	9.2	9.4	8.8	8.8	8.1	6.7	5.7	5.8	5.6	5.4	5.3	6.7
Toledo, Ohio....	10.7	11.0	11.4	10.8	11.0	10.8	10.4	10.0	10.9	12.6	13.0	13.5	13.7	13.8	12.6	11.8	10.8	10.8	11.4	11.3	11.1	10.3	10.7	11.6	
Vicksburg, Miss....	7.5	7.0	7.0	7.7	7.3	7.3	7.4	7.1	7.1	7.5	7.3	7.3	7.6	7.3	7.8	7.5	7.0	5.8	5.4	5.8	6.4	6.6	7.1	7.0	
Vineyard Haven, Mass...	10.8	10.5	10.6	10.2	10.1	10.6	11.3	11.1	11.8	12.1	11.6	11.1	11.2	10.9	9.9	10.1	10.6	10.3	10.2	9.9	10.2	10.7	10.7	10.8	
Walla Walla, Wash....	5.1	5.4	5.5	5.2	5.1	5.5	5.1	5.2	5.1	5.4	5.8	6.0	6.3	6.3	7.1	7.6	7.2	7.1	7.0	6.0	5.7	6.0	5.8	5.9	
Washington, D. C....	5.8	5.7	5.5	5.7	5.3	6.9	6.1	6.2	7.3	9.1</td															

TABLE VII.—Resultant winds from observations at 8 a. m. and 8 p. m., daily, during the month of November, 1898.

Stations.	Component direction from—				Resultant.		Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.		N.	S.	E.	W.	Direction from—	Duration.
New England.					°	Hours.						°	Hours.
Eastport, Me.	26	11	13	22	n. 31 w.	18	Bismarck, N. Dak.	25	12	14	28	n. 47 w.	19
Portland, Me.	24	12	5	30	n. 64 w.	28	Williston, N. Dak.	24	20	10	22	n. 41 w.	18
Northfield, Vt.	25	30	3	9	s. 50 w.	8	Upper Mississippi Valley.						
Boston, Mass.	21	11	7	33	n. 69 w.	28	St. Paul, Minn.	16	23	16	24	s. 49 w.	11
Nantucket, Mass.	26	10	11	26	n. 43 w.	22	La Crosse, Wis. †	8	16	5	9	s. 27 w.	9
Woods Hole, Mass.*	9	8	6	14	n. 83 w.	8	Davenport, Iowa.	9	21	15	29	s. 49 w.	18
Block Island, R. I.	26	9	11	29	n. 47 w.	25	Des Moines, Iowa.	19	21	4	27	s. 35 w.	23
New Haven, Conn.	33	7	8	25	n. 33 w.	31	Dubuque, Iowa.	12	28	12	20	s. 27 w.	18
Middle Atlantic States.							Keokuk, Iowa.	13	25	13	25	s. 45 w.	17
Albany, N. Y.	25	22	5	16	n. 75 w.	11	Cairo, Ill.	20	23	17	15	s. 45 e.	3
Binghamton, N. Y. †	12	2	12	11	n. 6 e.	10	Springfield, Ill.	12	28	7	22	s. 43 w.	23
New York, N. Y.	25	13	13	28	n. 51 w.	19	Hannibal, Mo. †	6	11	8	13	s. 45 w.	7
Harrisburg, Pa. †	9	3	7	15	n. 53 w.	10	St. Louis, Mo.	9	24	15	21	s. 22 w.	16
Philadelphia, Pa.	24	15	10	26	n. 61 w.	18	Missouri Valley.						
Atlantic City, N. J.	25	13	10	29	n. 58 w.	22	Columbia, Mo. *	4	11	8	12	s. 30 w.	8
Cape May, N. J.	22	15	9	27	n. 69 w.	19	Kansas City, Mo.	15	25	21	18	s. 17 e.	10
Baltimore, Md.	14	13	13	25	n. 47 w.	16	Springfield, Mo.	13	17	29	12	s. 76 e.	16
Washington, D. C.	22	17	8	24	n. 73 w.	17	Lincoln, Nebr.	10	31	13	14	s. 5 w.	21
Lynchburg, Va.	23	18	5	32	n. 80 w.	28	Omaha, Nebr.	18	24	8	24	s. 69 w.	17
Norfolk, Va.	25	16	14	17	n. 18 w.	10	Sioux City, Iowa.	10	12	5	10	s. 68 w.	5
Richmond, Va.	14	23	10	21	n. 51 w.	14	Pierre, S. Dak.	24	16	20	23	n. 21 w.	8
South Atlantic States.							Huron, S. Dak.	19	19	12	23	w.	11
Charlotte, N. C.	28	15	21	8	n. 45 e.	18	Yankton, S. Dak. †	9	7	3	19	n. 87 w.	16
Hatteras, N. C.	32	9	6	24	n. 38 w.	29	Northern Slope.						
Raleigh, N. C.	23	16	14	19	n. 36 w.	9	Havre, Mont.	13	18	9	36	s. 80 w.	28
Wilmington, N. C.	28	8	21	13	n. 22 e.	22	Miles City, Mont.	13	23	6	30	s. 67 w.	26
Charleston, S. C.	31	6	19	12	n. 14 e.	29	Helena, Mont.	11	26	1	37	s. 68 w.	39
Augusta, Ga.	27	6	19	22	n. 8 e.	21	Rapid City, S. Dak.	19	9	8	36	n. 70 w.	30
Savannah, Ga.	33	11	19	14	n. 13 e.	23	Cheyenne, Wyo.	26	9	3	35	n. 62 w.	36
Jacksonville, Fla.	29	10	25	12	n. 34 e.	23	Lander, Wyo.	14	24	14	24	s. 45 w.	14
Florida Peninsula.							North Platte, Nebr.	26	15	10	22	n. 47 w.	16
Jupiter, Fla.	15	18	24	12	s. 76 e.	12	Middle Slope.						
Key West, Fla.	17	9	42	3	n. 79 e.	40	Denver, Colo.	21	23	9	18	s. 77 w.	9
Tampa, Fla.	31	10	24	8	n. 37 e.	26	Pueblo, Colo.	18	10	18	22	n. 27 w.	9
Eastern Gulf States.							Concordia, Kans.	13	30	9	17	s. 25 w.	19
Atlanta, Ga.	26	9	26	16	n. 30 e.	20	Dodge, Kans.	16	18	16	23	s. 74 w.	7
Pensacola, Fla.	34	11	28	5	n. 45 e.	32	Wichita, Kans.	19	24	18	11	s. 54 e.	9
Mobile, Ala.	39	11	12	7	n. 10 e.	28	Oklahoma, Okla.	20	26	8	14	s. 45 w.	8
Montgomery, Ala.	21	11	29	10	n. 62 e.	22	Southern Slope.						
Vicksburg, Miss.	23	17	31	7	n. 76 e.	25	Abilene, Tex.	13	29	16	18	s. 16 w.	7
New Orleans, La.	27	9	27	7	n. 48 e.	27	Amarillo, Tex.	16	27	11	17	s. 29 w.	12
Western Gulf States.							Southern Plateau.						
Shreveport, La.	19	22	26	10	s. 79 e.	16	El Paso, Tex.	19	9	26	20	n. 31 e.	12
Fort Smith, Ark.	11	10	32	14	n. 87 e.	18	Santa Fe, N. Mex.	21	25	20	9	s. 70 e.	12
Little Rock, Ark.	16	23	19	17	s. 16 e.	7	Flagstaff, Ariz.	24	10	15	22	n. 27 w.	16
Corpus Christi, Tex.	31	10	20	8	n. 30 e.	24	Phoenix, Ariz.	15	13	24	20	n. 63 e.	4
Fort Worth, Tex.	10	10	5	14	w.	9	Yuma, Ariz.	28	4	16	15	s. 2 e.	24
Galveston, Tex.	27	11	30	7	n. 55 e.	28	Independence, Cal.	28	18	9	21	n. 50 w.	16
Palestine, Tex.	25	22	20	12	n. 69 e.	8	Middle Plateau.						
San Antonio, Tex.	29	15	23	6	n. 51 e.	22	Carson City, Nev.	23	12	8	30	n. 47 w.	16
Ohio Valley and Tennessee.							Winnemucca, Nev.	19	26	7	21	s. 62 w.	15
Chattanooga, Tenn.	20	20	18	16	e.	2	Salt Lake City, Utah.	16	23	22	16	s. 41 e.	9
Knoxville, Tenn.	27	10	21	16	n. 16 e.	18	Northern Plateau.						
Memphis, Tenn.	19	23	17	18	n. 14 w.	4	Baker City, Oreg.	14	30	21	13	s. 27 e.	18
Nashville, Tenn.	18	23	15	15	s.	5	Idaho Falls, Idaho.	14	39	3	12	s. 20 w.	27
Lexington, Ky.	11	25	13	23	s. 36 w.	17	Spokane, Wash.	11	32	10	18	s. 21 w.	22
Louisville, Ky.	14	27	17	18	s. 4 w.	13	Walla Walla, Wash.	5	39	11	13	s. 3 w.	34
Evansville, Ind. †	7	11	6	10	s. 45 w.	6	North Pacific Coast Region.						
Indianapolis, Ind.	16	27	5	25	s. 61 w.	23	Fort Canby, Wash.	7	19	24	19	s. 23 e.	13
Cincinnati, Ohio.	7	26	20	24	s. 12 w.	19	Neah, Wash.	2	14	23	30	s. 30 w.	14
Columbus, Ohio.	6	24	20	22	s. 6 w.	18	Port Crescent, Wash.	0	11	6	18	s. 47 w.	16
Pittsburg, Pa.	18	25	9	24	s. 65 w.	17	Seattle, Wash.	10	35	19	6	s. 27 e.	28
Parkersburg, W. Va.	10	30	15	19	s. 11 w.	20	Tacoma, Wash.	10	35	10	25	s. 31 w.	29
Lower Lake Region.							Portland, Oreg.	15	29	10	14	s. 16 w.	15
Buffalo, N. Y.	13	18	11	32	s. 77 w.	23	Roseburg, Oreg.	19	23	17	16	s. 18 e.	3
Oswego, N. Y.	16	25	18	20	s. 13 w.	9	Middle Pacific Coast Region.						
Rochester, N. Y.	11	23	9	34	s. 64 w.	28	Eureka, Cal.	14	26	14	21	s. 30 w.	14
Erie, Pa.	14	27	6	21	s. 49 w.	20	Mount Tamalpais, Cal.	38	4	9	28	s. 29 w.	39
Cleveland, Ohio.	8	32	18	20	s. 5 w.	24	Red Bluff, Cal.	37	9	4	22	n. 33 w.	38
Sandusky, Ohio.	7	25	7	30	s. 52 w.	29	Sacramento, Cal.	24	24	16	10	e.	6
Toledo, Ohio.	7	26	5	34	s. 57 w.	35	San Francisco, Cal.	14	13	5	39	n. 88 w.	34
Detroit, Mich.	8	28	9	33	s. 50 w.	31	South Pacific Coast Region.						
Upper Lake Region.							Fresno, Cal.	23	12	17	21	n. 20 w.	12
Alpena, Mich.	9	27	5	29	s. 53 w.	30	Los Angeles, Cal.	17	11	5	32	n. 78 w.	28
Escanaba, Mich.	14	25	5	33	s. 68 w.	30	San Diego, Cal.	33	8	21	19	n. 5 e.	25
Grand Haven, Mich.	12	25	19	21	s. 9 w.	13	San Luis Obispo, Cal.	45	3	6	12	n. 8 w.	42
Marquette, Mich.	11	28	6	28	s. 52 w.	28	West Indies.						
Port Huron, Mich.	8	33	11	21	s. 22 w.	27	Basseterre, St. Kitts Island.	32	2	44	1	n. 55 e.	52
Sault Ste. Marie, Mich.	13	20	23	19	s. 30 e.	8	Bridgetown, Barbados.	13	5	52	0	n. 81 e.	52
Chicago, Ill.	11	27	6	29	s. 55 w.	28	Colon, U. S. C.	17	26	24	11	s. 55 e.	16
Milwaukee, Wis.	10	24	8	29	s. 56 w.	25	Roseau, Dominica.	20	4	47	1	n. 71 e.	49
Green Bay, Wis.	7	29	7	25	s. 39 w.	28	Willemstad, Curacao.	11	1	58	0	n. 78 e.	48
Duluth, Minn.	22	15	7	33	n. 75 w.	27	Alaska.						
North Dakota.							Sitka.	13	12	45	3	n. 89 w.	42
Moorhead, Minn.	19	20	19	22	s. 72 w.	3							

\* From observations at 8 p. m. only.

† From observations at 8 a. m. only.

TABLE VIII.—*Thunderstorms and auroras, November, 1898.*

States.	No. of stations.																														Total.													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31												
Alabama.....	53	T.							3					1	1																		6	4	T.									
Arizona.....	53	T.																															0	0	A.									
Arkansas.....	57	T.							3				1	1																		0	0	A.										
California.....	189	T.																														12	4	A.										
Colorado.....	73	T.																														1	1	A.										
Connecticut.....	22	T.																														0	0	A.										
Delaware.....	5	T.																														0	0	A.										
Dist. of Columbia.....	4	T.																														0	0	A.										
Florida.....	45	T.																														2	2	A.										
Georgia.....	54	T.								1																					3	3	T.											
Idaho.....	27	T.																														0	0	A.										
Illinois.....	92	T.							5	25																					40	5	A.											
Indiana.....	55	T.								16				1																	17	2	A.											
Indian Territory.....	8	T.								1																					1	1	T.											
Iowa.....	126	T.							3	1																					5	0	A.											
Kansas.....	74	T.							2																						4	0	A.											
Kentucky.....	45	T.							17																						19	3	T.											
Louisiana.....	45	T.								10				3	4	1					6	2			2							33	10	A.										
Maine.....	17	T.								1																					0	0	T.											
Maryland.....	39	T.							1	2	1																			3	4	A.												
Massachusetts.....	54	T.																													1	1	T.											
Michigan.....	107	T.							3					1	3															4	4	A.												
Minnesota.....	64	T.												1																0	0	T.												
Mississippi.....	42	T.							3					7																	18	4	T.											
Missouri.....	89	T.							11	5			1	1																23	5	A.												
Montana.....	37	T.																													0	0	T.											
Nebraska.....	145	T.																														11	9	A.										
Nevada.....	45	T.																													0	0	A.											
New Hampshire.....	20	T.																													0	0	A.											
New Jersey.....	50	T.																													0	0	A.											
New Mexico.....	38	T.																													0	0	A.											
New York.....	103	T.								1				1																2	2	A.												
North Carolina.....	56	T.								1																					0	0	T.											
North Dakota.....	40	T.																													0	0	A.											
Ohio.....	124	T.							44				1	1																48	7	A.												
Oklahoma.....	22	T.																													1	1	A.											
Oregon.....	71	T.								1																					13	0	T.											
Pennsylvania.....	100	T.								1																					3	3	A.											
Rhode Island.....	8	T.																													0	0	A.											
South Carolina.....	44	T.																													0	0	A.											
South Dakota.....	52	T.																													0	0	A.											
Tennessee.....	61	T.								8				2																	16	4	A.											
Texas.....	83	T.												1	2															7	0	A.												
Utah.....	34	T.																													0	0	A.											
Vermont.....	14	T.																													0	0	T.											
Virginia.....	47	T.																													2	2	A.											
Washington.....	55	T.								1																				0	0	A.												
West Virginia.....	38	T.								1																				0	0	A.												
Wisconsin.....	60	T.								3	5	4																		12	3	A.												
Wyoming.....	18	T.																													0	0	A.											
Sums.....	2,804	T.	0	1	3	27	0	183	5	1	0	4	25	2	1	10	2	6	5	2	0	2	14	3	17	2	16	3	9	29	5	4	1	1	13	0	2	6	0	1	338	54	T.	
		A.	1	1	5	0	1	1	0	1	0	2	2	2	1	10	2	6	5	4	2	0	2	14	3	17	2	16	3	9	29	5	4	1	1	13	0	2	6	0	1	338	54	A.

TABLE IX.—Average hourly sunshine (in percentages), November, 1898.

Stations.	Instrument.	Percentages for each hour of local mean time ending with the respective hour.														Hours of sunshine.				
		A. M.							P. M.							Total.				
		5	6	7	8	9	10	11	Noon	1	2	3	4	5	6	7	8	Actual.	Possible.	Percent of possible.
																		Hours.	Hours.	Personal estimate.
Albany, N. Y.	T.	9	12	24	42	51	51	49	42	39	26	21	...	...	...	...	104.9	202.3	36	52
Atlanta, Ga.	T.	51	51	58	63	70	69	69	60	52	47	37	67	...	...	...	179.3	312.2	57	52
Atlantic City, N. J.	P.	59	47	45	45	50	48	45	46	51	55	46	...	...	...	...	145.0	301.5	48	41
Baltimore, Md.	T.	41	39	51	58	68	79	80	74	65	45	28	...	...	...	...	177.8	301.5	59	50
Binghamton, N. Y.	T.	0	4	14	30	35	41	37	34	32	19	10	...	...	...	...	76.0	294.9	26	21
Bismarck, N. Dak.	P.	41	53	57	63	66	52	63	60	57	54	...	...	...	...	...	168.0	281.0	60	54
Boston, Mass.	T.	49	43	42	45	48	47	47	45	42	38	28	...	...	...	...	125.5	294.9	43	41
Buffalo, N. Y.	T.	5	11	27	37	51	48	54	53	37	21	15	...	...	...	...	104.4	292.3	36	21
Charleston, S. C.	T.	44	50	59	61	59	65	63	57	47	42	40	75	...	...	...	171.1	314.0	54	54
Chattanooga, Tenn.	T.	18	20	38	48	52	56	59	50	50	44	41	75	...	...	...	139.1	310.1	45	48
Cheyenne, Wyo.	P.	55	51	69	79	77	83	79	74	76	76	56	...	...	...	...	214.2	297.3	72	59
Chicago, Ill.	T.	23	22	41	63	66	58	57	55	52	38	40	...	...	...	...	145.0	294.9	49	44
Cincinnati, Ohio	T.	51	49	49	54	59	56	56	50	44	45	42	...	...	...	...	152.3	301.5	51	47
Cleveland, Ohio	T.	26	17	18	22	26	30	31	29	25	18	18	...	...	...	...	69.9	294.9	24	26
Columbia, Mo.	T.	38	60	66	68	74	74	76	71	60	59	55	...	...	...	...	199.6	301.5	86	48
Columbus, Ohio.	T.	42	33	33	36	51	48	45	38	34	33	38	...	...	...	...	117.0	299.7	39	44
Denver, Colo.	P.	64	68	78	79	81	77	81	85	82	74	71	...	...	...	...	231.9	299.7	77	64
Des Moines, Iowa	T.	42	46	46	57	73	68	63	66	58	54	55	...	...	...	...	172.5	294.9	58	58
Detroit, Mich.	T.	11	14	32	45	41	43	50	51	39	24	14	...	...	...	...	105.3	294.9	36	31
Dodge, Kans.	P.	68	67	71	77	79	74	73	76	76	71	67	0	...	...	...	231.8	304.0	73	66
Dubuque, Iowa	T.	34	36	48	59	64	68	70	68	63	50	49	...	...	...	...	168.1	294.9	57	50
Eastport, Me.	P.	48	24	25	28	28	29	26	28	31	28	26	...	...	...	...	78.1	287.2	27	14
Erie, Pa.	T.	13	13	24	30	38	41	35	35	24	13	10	...	...	...	...	78.5	294.8	27	34
Eureka, Cal.	P.	35	30	36	41	42	42	46	46	51	51	54	...	...	...	...	124.7	297.3	42	38
Fresno, Cal.	T.	75	70	77	78	64	85	88	91	91	87	87	100	...	...	...	255.3	305.7	84	76
Galveston, Tex.	P.	12	35	43	54	52	52	53	50	52	50	43	26	...	...	...	148.9	321.7	46	40
Harrisburg, Pa.	T.	29	24	27	40	54	50	53	54	50	36	34	...	...	...	...	155.9	299.7	42	36
Helena, Mont.	P.	6	22	31	42	47	51	51	47	35	30	29	...	...	...	...	109.6	281.0	39	31
Huron, S. Dak.	T.	67	60	60	67	77	80	81	70	57	49	46	...	...	...	...	180.6	289.7	66	58
Idaho Falls, Idaho	T.	42	21	22	30	49	52	55	47	41	30	27	...	...	...	...	110.5	292.3	38	35
Indianapolis, Ind.	T.	43	43	44	50	50	53	51	48	41	32	32	...	...	...	...	133.6	299.7	45	35
Jacksonville, Fla.	T.	28	33	49	53	61	61	62	59	54	45	38	...	...	...	...	157.0	319.7	49	39
Kansas City, Mo.	P.	62	55	59	58	57	61	54	58	54	48	53	...	...	...	...	169.1	301.5	56	58
Key West, Fla.	T.	32	56	74	86	90	96	91	81	75	58	40	31	...	...	...	133.4	328.2	71	50
Knoxville, Tenn.	T.	39	34	50	60	65	68	64	62	58	48	45	100	...	...	...	168.8	308.3	55	47
Little Rock, Ark.	T.	38	41	56	66	75	75	73	69	68	66	62	75	...	...	...	198.3	310.1	64	46
Los Angeles, Cal.	P.	81	83	85	94	95	96	98	96	94	91	90	95	...	...	...	286.7	312.3	92	78
Louisville, Ky.	T.	53	47	47	51	48	54	53	47	43	38	33	30	100	...	...	138.9	304.0	46	35
Minneapolis, Minn.	T.	38	34	38	49	59	69	66	61	51	50	39	...	...	...	...	148.9	287.2	52	48
Nashville, Tenn.	T.	39	35	43	53	54	60	64	59	57	52	44	95	...	...	...	159.1	308.3	52	48
New Orleans, La.	T.	17	33	44	46	59	64	60	60	58	41	38	...	...	...	...	147.2	297.3	50	38
New York, N. Y.	P.	33	25	26	33	34	34	36	34	39	35	30	...	...	...	...	94.9	289.7	33	31
Northfield, Vt.	T.	58	61	70	71	71	77	77	79	75	69	57	25	...	...	...	217.6	310.1	70	65
Oklahoma, Okla.	P.	58	44	52	64	69	68	60	66	62	56	57	...	...	...	...	177.8	297.3	60	54
Portland, Oreg.	T.	12	10	14	38	45	48	49	44	32	24	21	...	...	...	...	97.2	301.5	32	32
Raleigh, N. C.	P.	87	88	92	96	97	93	92	93	91	91	87	93	...	...	...	287.9	314.0	92	81
Rochester, N. Y.	T.	44	39	42	46	56	59	59	62	58	54	53	...	...	...	...	157.5	299.7	53	41
St. Louis, Mo.	T.	10	8	17	21	30	36	37	41	30	14	17	...	...	...	...	74.5	297.3	25	26
St. Paul, Minn.	T.	0	8	33	43	45	44	44	38	40	24	16	...	...	...	...	98.4	289.7	34	33
Salt Lake City, Utah	P.	53	45	52	63	68	70	57	59	56	51	47	...	...	...	...	169.2	297.3	57	41
San Diego, Cal.	P.	81	80	88	93	96	97	92	93	95	94	88	...	...	...	...	287.2	314.0	91	87
San Francisco, Cal.	T.	31	40	61	74	86	90	93	96	96	84	49	0	...	...	...	231.0	304.0	76	59
Santa Fe, N. Mex.	P.	64	67	71	80	88	88	89	86	87	86	88	50	...	...	...	253.1	308.3	82	79
Savannah, Ga.	T.	44	43	53	59	63	67	70	61	51	49	47	58	...	...	...	175.8	315.9	56	47
Seattle, Wash.	T.	0	4	4	10	18	22	25	23	21	11	3	...	...	...	...	41.8	278.0	15	25
Spokane, Wash.	T.	31	14	12	17	27	24	23	14	14	10	5	...	...	...	...	47.0	278.0	17	18
Tacoma, Wash.	T.	12	8	19	32	43	54	61	51	41	28	26	...	...	...	...	104.3	281.0	37	20
Tampa, Fla.	T.	30	33	40	57	62	63	53	50	30	38	31	33	...	...	...	154.4	323.5	48	45
Topeka, Kans.	T.	59	54	55	56	62	70	65	59	57	47	43	0	...	...	...	172.7	301.5	57	57
Vicksburg, Miss.	T.	35	30	40	47	47	56	58	51	53	44	34	50	...	...	...	142.0	315.9	45	41
Washington, D. C.	P.	49	43	49	56	60	68	67	60	48	37	...	...	...	...	168.1	301.5	58	49	
Wilmette, N. C.	T.	44	44	51	63	73	71	69	64	57	36	67	...	...	...	...	185.7	312.2	59	53
Yankton, S. Dak.	T.	0	44	43	62	72	86	88	84	77	53	37	...	...	...	...	208.6	292.3	70	45
Bridgetown, Barbados	T.	0	9	31	57	62	54	44	40	32	18	12	7	9	...	...	111.1	346.1	32	25
Colon, United States of Columbia	T.	31	23	26	47	63	65	54	45	30	8	0	0	...	...	...	130.4	351.7	37	32
Willemstad, Curacao	T.	40	38	82	85	85	81	87	96	91	81	59	31	...	...	...	270.0	347.6	78	48

TABLE X.—Accumulated amounts of precipitation for each 5 minutes, for storms in which the rate of fall equaled or exceeded 0.25 in any 5 minutes, or 0.75 in 1 hour during November, 1898, at all stations furnished with self-registering gauges.

Stations.	Date.	Total duration.		Total amt. of precipi- tation.	Excessive rate.			Amount be- fore exces- sive began	Depths of precipitation (in inches) during periods of time as indicated.												
		From—	To—		Began—	Ended—	5		10	15	20	25	30	35	40	45	50	60	80	100	120
		1	2	3	4	5	6	7													
Albany, N. Y.	9-10			1.91																0.20	
Atlanta, Ga.	17-18			0.70																0.15	
Atlantic City, N. J.	18-19			0.79																0.30	
Baltimore, Md.	10			1.00																0.48	
Binghamton, N. Y.	9-10			1.61																0.22	
Bismarck, N. Dak.*	20-21			0.06																	
Boston, Mass.	10-11			1.30																0.15	
Buffalo, N. Y.	9-10			1.62																0.15	
Cairo, Ill.	9			0.70																0.21	
Charleston, S. C.	13-14			1.03																0.44	
Chicago, Ill.*																					
Cincinnati, Ohio	9-10			1.89																0.18	
Cleveland, Ohio	9-10			1.50																0.14	
Columbia, Mo.	20-21			0.97																0.23	
Columbus, Ohio	9-10			1.57																0.24	
Denver, Colo.	20			0.31																0.08	
Des Moines, Iowa	21			0.82																0.31	
Detroit, Mich.	8-9			1.19																0.18	
Dodge, Kans.	21			0.35																*	
Duluth, Minn.	21-22			0.61																0.40	
Eastport, Me.	6			1.34																0.30	
Erie, Pa.	9-11			1.71																0.31	
Fort Worth, Tex.	20-21	10.55 p.m.	12.25 a.m.	0.78	11.00 p.m.	11.50 p.m.	0.01	0.12	0.30	0.37	0.40	0.45	0.49	0.54	0.58	0.67	0.72	0.73	*		
Fresno, Cal.	19			0.34																*	
Galveston, Tex.	9	1.52 p.m.	6.25 p.m.	1.62	2.14 p.m.	3.20 p.m.	0.02	0.10	0.30	0.35	0.38	0.44	0.54	0.76	0.98	1.13	1.25	1.35	1.47	1.48	
Hannibal, Mo.	4-5			0.86																0.27	
Harrisburg, Pa.	9			0.80																0.24	
Hatteras, N. C.	16			1.52																0.75	
Huron, S. Dak.*																					
Idaho Falls, Idaho	19-20			0.30																*	
Indianapolis, Ind.	9-10			1.15																0.18	
Jacksonville, Fla.	28-29			0.86																0.24	
Jupiter, Fla.	12			0.52																0.36	
Kansas City, Mo.	4			0.50																0.50	
Key West, Fla.	29	5.25 p.m.	8.45 p.m.	1.04	5.40 p.m.	6.05 p.m.	0.05	0.10	0.30	0.40	0.65	0.72	0.75	0.80						0.14	
Knoxville, Tenn.	18			0.65																*	
Lincoln, Nebr.	21-22	1.25 a.m.	12.00 m.	0.82	2.08	3.10 a.m.	4.15 a.m.	0.22	0.04	0.08	0.13	0.19	0.25	0.36	0.55	0.60	0.66	0.80	0.95	1.10	
Little Rock, Ark.	9			T.																0.41	
Los Angeles, Cal.	20			1.35																0.29	
Louisville, Ky.	9-10			1.05																0.08	
Memphis, Tenn.	9			0.18																0.74	
Milwaukee, Wis.	21			1.60																0.24	
Montgomery, Ala.	9-10			0.67																0.20	
Nantucket, Mass.	18-19			1.61																0.20	
Nashville, Tenn.	9-10	6.45 p.m.	10.20 p.m.	1.13	9.03 p.m.	9.35 p.m.	0.04	0.31	0.54	0.58	0.62	0.84	1.02	1.04	1.06					0.16	
New Orleans, La.	9			1.60																0.40	
New York, N. Y.	18-19			0.60																*	
Norfolk, Va.	29			1.27																0.36	
Northfield, Vt.	9-11			0.80																*	
Oklahoma, Okla.	20-21			1.05																0.21	
Omaha, Nebr.	21-22			1.14																0.35	
Parkersburg, W. Va.	9-10			1.85																0.22	
Philadelphia, Pa.	10			0.87																0.19	
Pittsburg, Pa.	10			1.71																0.34	
Portland, Me.	10-11			0.54																0.19	
Portland, Oreg.	23			0.54																*	
Raleigh, N. C.	29			0.65																0.19	
Richmond, Va.	29-30			1.98																0.17	
Rochester, N. Y.	9-11			0.95																0.18	
St. Louis, Mo.	9-10			0.96																0.20	
St. Paul, Minn.	21-22			0.66																0.08	
Salt Lake City, Utah.	20			0.11																*	
San Diego, Cal.	24			0.24																0.19	
San Francisco, Cal.	19			3.70																0.91*	
Savannah, Ga.	17-18			0.31																0.13	
Seattle, Wash.	21			0.29																0.05	
Spokane, Wash.	18			12.50 a.m.	1.58	1.25 a.m.	2.15 a.m.	0.10	0.14	0.22	0.34	0.42	0.58	0.85	1.04	1.19	1.32	1.40			
Tampa, Fla.	29	1.40 p.m.	7.15 p.m.	1.26	2.10 p.m.	2.25 p.m.	0.10	0.29	0.53	0.62	0.64	0.67	0.71	0.76							
Vicksburg, Miss.	9	3.24 p.m.	4.15 p.m.	0.65	3.34 p.m.	4.06 p.m.	T.	0.26	0.40	0.48	0.51	0.58	0.64								
Washington, D. C.	18-19			0.92																0.22	
Wilmington, N. C.	18			1.23																0.23	
Yankton, S. Dak.	20-21			1.00																0.49	
Easseterre, St. Kitts	5			D. N.	4.10 a.m.	0.97	2.10 a.m.	2.45 a.m.	0.11	0.06	0.16	0.38	0.49	0.59	0.67	0.71	0.73	0.74	0.77	0.81	
Bridgetown, Barbados	6			4.00 p.m.	7.38 p.m.	1.99	4.57 p.m.	5.35 p.m.	0.01	0.39	0.78	1.09	1.22	1.40	1.54	1.65	1.72	1.75	1.78	1.79	
Do.	10			11-25 a.m.	12.34 p.m.	1.01	11.40 a.m.	12.10 p.m.	0.02	0.14	0.24	0.43	0.73	0.88	0.93	0.96					
Colon, U. S. C.	19	12.30 a.m.	11.00 a.m.	2.55	3.24 a.m.	4.20 a.m.	0.08	0.08	0.13	0.27	0.48	0.73	0.88	0.97	0.98	1.00	1.16	1.25	1.36	1.61	
Do.	21	4.30 a.m.	8.02 a.m.	1.51	5.35 a.m.	6.35 a.m.	0.31	0.12	0.24	0.37	0.45	0.47	0.49	0.55	0.64	0.73	0.84	1.00		0.52	
Roseau, Dominica	8-10			2.19																	
Willemstad, Curacao	7-8	11.25 p.m.	3.00 a.m.	0.88	12.54 a.m.	1.04 a.m.	0.06	0.32	0.62	0.65	0.70	0.73									
Do.	8	7.00 a.m.	11.13 a.m.	1.16	7.14 a.m.	7.31 a.m.	0.03	0.25	0.58	0.62	0.65	0.66	0.67	0.70	0.71	0.78					

TABLE XI.—*Excessive precipitation, by stations, for November, 1898.*

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
<i>Alabama.</i>						
Healing Springs . . . . .	Inches.	Inches.				
2.55		17				
Newton . . . . .		2.85	14			
Union Springs . . . . .		2.65	17-18			
<i>Alaska.</i>						
Sitka . . . . .	13.47	3.92	12-13			
<i>Arkansas.</i>						
Amity . . . . .		2.71	9			
Blanchard Springs . . . . .		2.90	9			
Brinkley . . . . .		2.60	9			
Camden . . . . .		2.65	8			
Elon . . . . .		4.22	9			
Lonoke . . . . .		3.25	9			
Luna Landing . . . . .		4.15	9			
Malvern . . . . .		3.41	9			
Warren . . . . .		2.65	9			
Washington . . . . .		2.80	9			
Wiggs . . . . .				2.30	2 00	9
<i>California.</i>						
Bear Valley . . . . .		2.50	19			
Bowmans Dam . . . . .		3.63	29			
Laporte . . . . .		3.39	29			
Malakoff Mine . . . . .		2.77	19			
<i>Florida.</i>						
Tampa . . . . .				1.50	1 00	29
<i>Georgia.</i>						
Fleming . . . . .		2.50	17			
Hawkinsville . . . . .		2.80	17			
Jesup . . . . .		3.94	17-18			
Poulau . . . . .		2.53	18			
Savannah . . . . .		4.15	17-18			
<i>Indiana.</i>						
Vincennes . . . . .		2.50	6			
<i>Kentucky.</i>						
Caddo . . . . .				1.00	1 00	5
Hopkinsville . . . . .		2.70	9			
<i>Louisiana.</i>						
Amité . . . . .		10.89				
Bastrop . . . . .		3.84	9			
Donaldsonville . . . . .		12.93	3.00	17		
Farmerville . . . . .		4.20	9			
Lake Providence . . . . .		2.55	9			
New Orleans . . . . .				1.09	0 50	9
Paincourtville . . . . .		3.54	17-18			
Plain Dealing . . . . .		4.13	9			
Rayne . . . . .		2.85	10			
Robeline . . . . .		2.50	8-9			
Rustou . . . . .		3.12	9			
<i>Maine.</i>						
Bar Harbor . . . . .		2.75	10-11			
Orono . . . . .		2.50	10			
<i>Massachusetts.</i>						
Chestnut Hill . . . . .		2.76	26-27			
Jefferson . . . . .		2.60	26-27			
Vineyard Haven . . . . .		11.01	3.60	26-27		
<i>Mississippi.</i>						
Briers . . . . .		4.25	13			
Brookhaven . . . . .		2.60	13			
Fayette . . . . .				1.12	0 25	21
Greenville . . . . .		2.93	9			

TABLE XI.—*Excessive precipitation—Continued.*

Stations.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Day.
<i>Missouri.</i>					
Halfway . . . . .	Inches.	Inches.			
2.75		21			
Sarcoxie . . . . .		2.60	21		
Springfield . . . . .				1.00	0 55
<i>New York.</i>					
Easton . . . . .	Inches.	Inches.			
2.96		11			
Ohio . . . . .					
Levering . . . . .		3.00	5		
Oregon . . . . .					
Astoria . . . . .		10.93			
Bandon . . . . .		12.25	3.02	29	
Bay City . . . . .		16.42	2.50	30	
Cascade Locks . . . . .		16.75			
Fairview . . . . .		14.13			
Falls City . . . . .		12.26			
Gardiner . . . . .		15.00	3.72	18	
Glenora . . . . .		19.09			
Government Camp . . . . .		19.83	2.87	18	
Langlois . . . . .		16.56	6.20	17-18	
Do. . . . .		2.57		30	
Monroe . . . . .		11.13			
Nehalem . . . . .		15.13			
Newport . . . . .		11.29			
Toledo . . . . .		11.15	2.50	18	
<i>South Carolina.</i>					
Port Royal . . . . .	Inches.	Inches.			
2.73		17			
Tennessee . . . . .					
Johnsonville . . . . .		2.63	9-10		
Perryear . . . . .		2.70	9		
<i>Texas.</i>					
Alvin . . . . .					
Beaumont . . . . .				1.50	1 00
Brazoria . . . . .		2.64	9		9
Burnet . . . . .		2.80	9		
Columbia . . . . .		2.55	10		
Fruitland . . . . .		3.24	21		
Galveston . . . . .				1.35	1 00
Grapevine . . . . .				1.58	1 00
Houston . . . . .		2.85	10		21
<i>Vermont.</i>					
Jacksonville . . . . .					
Washington . . . . .		2.65	10-11		
<i>West Indies.</i>					
Aberdeen . . . . .		10.94			
Ashford . . . . .		10.43			
Cedar Lake . . . . .		15.18			
Clearwater . . . . .		15.32			
Mayfield . . . . .		10.81			
Neal . . . . .		15.60			
Southbend . . . . .		11.79			
Stampede . . . . .		10.74			
Union City . . . . .		10.95			

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